



# ***STIC Search Report***

***EIC 1700***

**STIC Database Tracking Number: 179456**

**TO: Satya Sastri  
Location: REM 10A30  
Art Unit : 1713  
February 15, 2006**

**Case Serial Number: 10/723510**

**From: Les Henderson  
Location: EIC 1700  
REM 4B28 / 4A30  
Phone: 571-272-2538**

**Leslie.henderson@uspto.gov**

## **Search Notes**



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

- I am an examiner in Workgroup:  Example: 1713  
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

**SEARCH REQUEST FORM**

Scientific and Technical Information Center

Requester's Full Name: Satya Antri Examiner #: 79815 Date: \_\_\_\_\_  
 Art Unit: 1713 Phone Number 30 \_\_\_\_\_ Serial Number: 161723510  
 Mail Box and Bldg/Room Location: Room 10A30 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Fluorchemical oligomer composition and use  
 Inventors (please provide full names): Coppens, and Godfriedt (thereof)  
& Janiwala

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

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**STAFF USE ONLY**

	Type of Search	Vendors and cost where applicable
Searcher: <u>YH</u>	NA Sequence (#) _____	STN <u>\$ 1,225.97</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>5</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>2/16/06</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>30</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: <u>20 300 2/14</u>	Patent Family _____	WWW/Internet _____
Online Time: <u>270</u>	Other _____	Other (specify) _____



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Bib Data Sheet

CONFIRMATION NO. 9001

SERIAL NUMBER 10/723,510	FILING DATE 11/26/2003  RULE	CLASS 524	GROUP ART UNIT 1713	ATTORNEY DOCKET NO. 59369US002
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APPLICANTS

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*none on 11/30/05*

\*\* CONTINUING DATA \*\*\*\*\*

\*\* FOREIGN APPLICATIONS \*\*\*\*\*

IF REQUIRED, FOREIGN FILING LICENSE GRANTED  
 \*\* 02/26/2004

Foreign Priority claimed 35 USC 119 (a-d) conditions met Verified and Acknowledged	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance <i>Salvatore</i> 11/30/05 Examiner Signature Initials	STATE OR COUNTRY MN	SHEETS DRAWING 0	TOTAL CLAIMS 26	INDEPENDENT CLAIMS 1
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TITLE  
 Fluorochemical oligomeric composition and use thereof

FILING FEE  RECEIVED 878	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees ( Filing ) <input type="checkbox"/> 1.17 Fees ( Processing Ext. of time ) <input type="checkbox"/> 1.18 Fees ( Issue )
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## **Fluorochemical Oligomeric Composition And Use Thereof**

### **Abstract**

5        A method of treating fibrous substrates by contacting the substrate with a fluorochemical composition comprising: a fluorochemical oligomeric component and an antisoiling component is described. The compositions provide desirable antisoiling properties, as well as oil, water and stain repellency to fibrous substrates.

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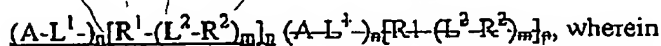
Case No.: 59369US002

**Amendments to the Claims:**

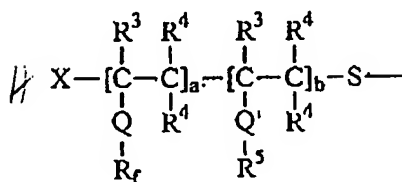
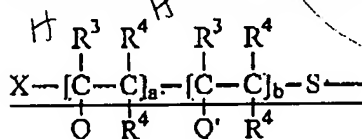
The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims**

1. (Currently amended) A composition comprising  
a) a fluorochemical oligomeric compound of the formula:



A is a fluorochemical oligomeric moiety of the formula



wherein the sum of  $a + b$  is a  $[[an]]$  number such that the compound is oligomeric, and  $a$  is at least 1;

$R^3$  is hydrogen, halogen, or straight chain or branched chain alkyl containing 1 to about 4 carbon atoms;

each  $R^4$  is independently hydrogen or straight chain or branched chain alkyl containing 1 to about 4 carbon atoms;

$Q$  and  $Q'$  are each independently a covalent bond or an organic linking group,

$R_f$  is a fluoroaliphatic group that comprises a fully fluorinated terminal group;

$R^5$  is a fluorine-free aliphatic group;

$X$  is a hydrogen atom or a group derived from a free radical initiator;

$L^1$  and  $L^2$  are independently divalent linking groups,

$R^1$  is the residue of an organic isocyanate,

$R^2$  is a hydrogen or an aliphatic group,

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n is 1 to 4, m is 0 to 4, and p is 1 to 4,

wherein at least one of said  $R^2$  and  $R^5$  groups has 12 or more carbon atoms; and

b) an antisoiling compound.

2. (Original) The composition of claim 1 wherein the ratio of a to b of said fluorochemical oligomer a), is at least 2:1.

3. (Original) The composition of claim 1, wherein  $R_f$  has the structure  $C_oF_{2o+1}$ , where o is 3 to 7.

4. (Original) The composition of claim 1, wherein each of  $L^1$  and  $L^2$  are derived from the reaction of a nucleophilic group with an isocyanate group.

5. (Original) The composition of claim 4 wherein  $L^1$  and  $L^2$  are independently selected from a ureylene, a urethanylbiuretylene, a guanidinylene and a carbodiimidylene.

6. (Original) The composition of claim 1 wherein a+b of said oligomeric moiety is 3 to 20.

7. (Original) The composition of claim 1 wherein the ratio of component a) to component b) is 1:20 to 20:1.

8. (Original) The composition of claim 1, wherein Q and Q' of said fluorochemical oligomer are independently selected from the following structures, wherein each k is independently an integer from 0 to about 20,  $R_1'$  is hydrogen, aryl, or alkyl of 1 to about 4 carbon atoms, and  $R_2'$  is alkyl of 1 to about 20 carbon atoms:  $1-20 \text{ AK}$   $k = 0 - 20$

✓ $-\text{SO}_2\text{NR}_1'(\text{CH}_2)_k\text{O}(\text{O})\text{C}-$	✓ $-\text{CONR}_1'(\text{CH}_2)_k\text{O}(\text{O})\text{C}-$
✓ $-(\text{CH}_2)_k\text{O}(\text{O})\text{C}-$	$-\text{CH}_2\text{CH}(\text{OR}_2')\text{CH}_2\text{O}(\text{O})\text{C}-$
$-(\text{CH}_2)_k\text{C}(\text{O})\text{O}-$	✓ $-(\text{CH}_2)_k\text{SC}(\text{O})-$

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✓ $-(CH_2)_kO(CH_2)_kO(O)C-$ ✓	✓ $-(CH_2)_kS(CH_2)_kO(O)C-$ ✓
✓ $-(CH_2)_kSO_2(CH_2)_kO(O)C-$ ✓	✓ $-(CH_2)_kS(CH_2)_kOC(O)-$ ✓
✓ $-(CH_2)_kSO_2NR_1'(CH_2)_kO(O)C-$ ✓	✓ $-(CH_2)_kSO_2-$ ✓
✓ $-SO_2NR_1'(CH_2)_kO-$ ✓	✓ $-SO_2NR_1'(CH_2)_k-$ ✓
✓ $-(CH_2)_kO(CH_2)_kC(O)O-$ ✓	✓ $-(CH_2)_kSO_2NR_1'(CH_2)_kC(O)O-$ ✓
✓ $-(CH_2)_kSO_2(CH_2)_kC(O)O-$ ✓	✓ $-CONR_1'(CH_2)_kC(O)O-$ ✓
✓ $-(CH_2)_kS(CH_2)_kC(O)O-$ ✓	✓ $-CH_2CH(OR_2')CH_2C(O)O-$ ✓
✓ $-SO_2NR_1'(CH_2)_kC(O)O-$ ✓	✓ $-(CH_2)_kO-$ ✓
✓ $-C_kH_{2k}-OC(O)NH-$ ✓	✓ $-C_kH_{2k}-NR_1'C(O)NH-$ ✓
✓ $-OC(O)NR'(CH_2)_k-$ ✓	✓ $-(CH_2)_kNR_1'-$ and ✓
✓ $-(CH_2)_kNR_1'C(O)O-$ ✓	

9. (Original) The composition of claim 1 wherein said  $R^2$  group is an aliphatic group of 12 to 75 carbon atoms.

10. (Original) The composition of claim 1 wherein the sum of carbons atoms in said  $R^2$  and  $R^5$  groups is 12 to 100.

11. (Original) The composition of claim 1 wherein said antisoiling compound is selected from a methacrylic ester polymer, colloidal alumina, colloidal silica, a silsesquioxane, polyvinylpyrrolidone and a water-soluble condensation polymer comprising the reaction product of formaldehyde and an amine.

12. (Original) The composition of claim 1 wherein said antisoiling compound comprises a water-insoluble addition polymers derived from a polymerizable ethylenically unsaturated monomer free of non-vinyl fluorine, the polymer having at least one major transition temperature higher than about 25°C.

13. (Original) The composition of claim 1, where b of said fluorochemical oligomeric moiety is 0.

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14. (Original) The composition of claim 1, wherein  $R^1$  is the residue of an aliphatic or aromatic polyisocyanate.

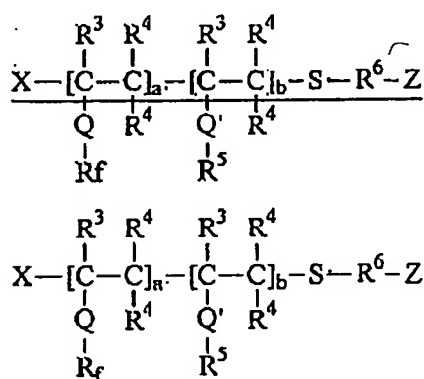
15. (Original) The composition of claim 1 wherein the ratio of component a) to component b) is 1:10 to 10:1.

16. (Original) The composition of claim 1, wherein said antisoiling (component b)) is selected from the group of (meth)acrylic ester (co)polymers, colloidal alumina, colloidal silica, silsesquioxanes, poly(vinylpyrrolidone) and styrene-maleic anhydride copolymers.

17. (Original) The composition of claim 16 wherein said antisoiling agent comprises ethyl methacrylate/methyl methacrylate copolymer.

18. (Currently amended) The composition of claim 1, wherein said fluorochemical oligomeric component is the reaction product of

a) a fluorochemical oligomer of the formula



wherein

$R^6$  is an aliphatic or aromatic group and Z is an isocyanate-reactive group,

b) a isocyanate of the formula  $R^1(NCO)_x$ , wherein x is 1 to 6, wherein  $R^1$  is an aliphatic, alicyclic or aromatic group, and

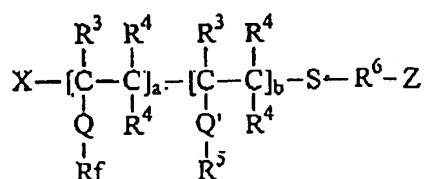
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c) an aliphatic compound of the formula  $R^2-(Z)_q$ , where  $R^2$  is a aliphatic group,  $Z$  is an isocyanate reactive group and  $q$  is 1 to 4.

19. (Original) The composition of claim 1, wherein said fluorochemical oligomeric component is the reaction product of

a) a fluorochemical oligomer of the formula



wherein

$R^6$  is an aliphatic or aromatic group,

$R^5$  is a non-fluorinated aliphatic group of 12 to 75 carbons atoms, and

$Z$  is an isocyanate-reactive group, and

b) an isocyanate of the formula  $R^1(NCO)_x$ , wherein  $x$  is 1 to 6, wherein  $R^1$  is an aliphatic, alicyclic or aromatic group.

20. (Original) A coating composition comprising a mixture of:

- a) a solvent; and
- b) the composition of Claim 1.

21. (Original) The coating composition of claim 20 wherein said mixture comprises an aqueous solution, dispersion or suspension.

22. (Original) The coating composition of claim 20 further comprising a surfactant.

23. (Original) The coating composition of claim 20 comprising 0.1 to 50 weight percent of said composition of claim 1.

24. (Original) An article comprising:

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a substrate having one or more surfaces; and  
the fluorochemical composition of Claim 1 coated on one or more surfaces of said  
substrate.

25. (Original) The article of Claim 24 wherein the substrate is a fibrous substrates.

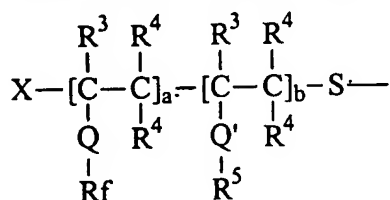
26. (Original) A method of imparting repellency and antisoiling to a substrate, having  
one or more surfaces, comprising the steps of:  
applying the coating composition of claim 20 onto one or more surfaces of said substrate;  
and  
curing the coating composition at ambient or elevated temperature.

We claim:

1. A composition comprising
  - a) a fluorochemical oligomeric compound of the formula:

5 (A-L<sup>1</sup>-)<sub>n</sub>[R<sup>1</sup>-(L<sup>2</sup>-R<sup>2</sup>)<sub>m</sub>]<sub>p</sub>, wherein

A is a fluorochemical oligomeric moiety of the formula



wherein the sum of a + b is an number such that the compound is oligomeric, and a is at least 1;

10 R<sup>3</sup> is hydrogen, halogen, or straight chain or branched chain alkyl containing 1 to about 4 carbon atoms;

each R<sup>4</sup> is independently hydrogen or straight chain or branched chain alkyl containing 1 to about 4 carbon atoms;

Q and Q' are each independently a covalent bond or an organic linking group,

15 R<sub>f</sub> is a fluoroaliphatic group that comprises a fully fluorinated terminal group;

R<sup>5</sup> is a fluorine-free aliphatic group;

X is a hydrogen atom or a group derived from a free radical initiator;

L<sup>1</sup> and L<sup>2</sup> are independently divalent linking groups,

R<sup>1</sup> is the residue of an organic isocyanate,

20 R<sup>2</sup> is a hydrogen or an aliphatic group,

n is 1 to 4, m is 0 to 4, and p is 1 to 4,

wherein at least one of said R<sup>2</sup> and R<sup>5</sup> groups has 12 or more carbon atoms; and

b) an antisoiling compound.

25 2. The composition of claim 1 wherein the ratio of a to b of said fluorochemical oligomer a), is at least 2:1.

3. The composition of claim 1, wherein R<sub>f</sub> has the structure C<sub>o</sub>F<sub>2o+1</sub>, where o is 3 to 7.



4. The composition of claim 1, wherein each of L<sup>1</sup> and L<sup>2</sup> are derived from the reaction of a nucleophilic group with an isocyanate group.

5. The composition of claim 4 wherein L<sup>1</sup> and L<sup>2</sup> are independently selected from a ureylene, a urethanylbiuretylene, a guanidinylene and a carbodiimidylene.

6. The composition of claim 1 wherein a+b of said oligomeric moiety is 3 to 20.

7. The composition of claim 1 wherein the ratio of component a) to component b) is 1:20 to 20:1.

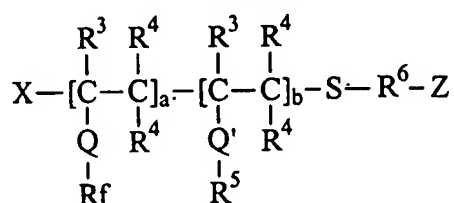
8. The composition of claim 1, wherein Q and Q' of said fluorochemical oligomer are independently selected from the following structures, wherein each k is independently an integer from 0 to about 20, R<sub>1</sub>' is hydrogen, aryl, or alkyl of 1 to about 4 carbon atoms, and R<sub>2</sub>' is alkyl of 1 to about 20 carbon atoms:

-SO <sub>2</sub> NR <sub>1</sub> '(CH <sub>2</sub> ) <sub>k</sub> O(O)C-	-CONR <sub>1</sub> '(CH <sub>2</sub> ) <sub>k</sub> O(O)C-
-(CH <sub>2</sub> ) <sub>k</sub> O(O)C-	-CH <sub>2</sub> CH(OR <sub>2</sub> ')CH <sub>2</sub> O(O)C-
-(CH <sub>2</sub> ) <sub>k</sub> C(O)O-	-(CH <sub>2</sub> ) <sub>k</sub> SC(O)-
-(CH <sub>2</sub> ) <sub>k</sub> O(CH <sub>2</sub> ) <sub>k</sub> O(O)C-	-(CH <sub>2</sub> ) <sub>k</sub> S(CH <sub>2</sub> ) <sub>k</sub> O(O)C-
-(CH <sub>2</sub> ) <sub>k</sub> SO <sub>2</sub> (CH <sub>2</sub> ) <sub>k</sub> O(O)C-	-(CH <sub>2</sub> ) <sub>k</sub> S(CH <sub>2</sub> ) <sub>k</sub> OC(O)-
-(CH <sub>2</sub> ) <sub>k</sub> SO <sub>2</sub> NR <sub>1</sub> '(CH <sub>2</sub> ) <sub>k</sub> O(O)C-	-(CH <sub>2</sub> ) <sub>k</sub> SO <sub>2</sub> -
-SO <sub>2</sub> NR <sub>1</sub> '(CH <sub>2</sub> ) <sub>k</sub> O-	-SO <sub>2</sub> NR <sub>1</sub> '(CH <sub>2</sub> ) <sub>k</sub> -
-(CH <sub>2</sub> ) <sub>k</sub> O(CH <sub>2</sub> ) <sub>k</sub> C(O)O-	-(CH <sub>2</sub> ) <sub>k</sub> SO <sub>2</sub> NR <sub>1</sub> '(CH <sub>2</sub> ) <sub>k</sub> C(O)O-
-(CH <sub>2</sub> ) <sub>k</sub> SO <sub>2</sub> (CH <sub>2</sub> ) <sub>k</sub> C(O)O-	-CONR <sub>1</sub> '(CH <sub>2</sub> ) <sub>k</sub> C(O)O-
-(CH <sub>2</sub> ) <sub>k</sub> S(CH <sub>2</sub> ) <sub>k</sub> C(O)O-	-CH <sub>2</sub> CH(OR <sub>2</sub> ')CH <sub>2</sub> C(O)O-
-SO <sub>2</sub> NR <sub>1</sub> '(CH <sub>2</sub> ) <sub>k</sub> C(O)O-	-(CH <sub>2</sub> ) <sub>k</sub> O-
-C <sub>k</sub> H <sub>2k</sub> -OC(O)NH-	-C <sub>k</sub> H <sub>2k</sub> -NR <sub>1</sub> 'C(O)NH-,
-OC(O)NR'(CH <sub>2</sub> ) <sub>k</sub> -	-(CH <sub>2</sub> ) <sub>k</sub> NR <sub>1</sub> '- and
-(CH <sub>2</sub> ) <sub>k</sub> NR <sub>1</sub> 'C(O)O-	

9. The composition of claim 1 wherein said  $R^2$  group is an aliphatic group of 12 to 75 carbon atoms.
10. The composition of claim 1 wherein the sum of carbons atoms in said  $R^2$  and  $R^5$  groups is 12 to 100.
11. The composition of claim 1 wherein said antisoiling compound is selected from a methacrylic ester polymer, colloidal alumina, colloidal silica, a silsesquioxane, polyvinylpyrrolidone and a water-soluble condensation polymer comprising the reaction product of formaldehyde and an amine.
12. The composition of claim 1 wherein said antisoiling compound comprises a water-insoluble addition polymers derived from a polymerizable ethylenically unsaturated monomer free of non-vinylic fluorine, the polymer having at least one major transition temperature higher than about 25°C .
13. The composition of claim 1, where b of said fluorochemical oligomeric moiety is 0.
14. The composition of claim 1, wherein  $R^1$  is the residue of an aliphatic or aromatic polyisocyanate.
15. The composition of claim 1 wherein the ratio of component a) to component b) is 1:10 to 10:1.
16. The composition of claim 1, wherein said antisoiling (component b)) is selected from the group of (meth)acrylic ester (co)polymers, colloidal alumina, colloidal silica, silsesquioxanes, poly(vinylpyrrolidone) and styrene-maleic anhydride copolymers.
17. The composition of claim 16 wherein said antisoiling agent comprises ethyl methacrylate/methyl methacrylate copolymer.

18. The composition of claim 1, wherein said fluorochemical oligomeric component is the reaction product of

a) a fluorochemical oligomer of the formula



wherein

$R^6$  is an aliphatic or aromatic group and Z is an isocyanate-reactive group,

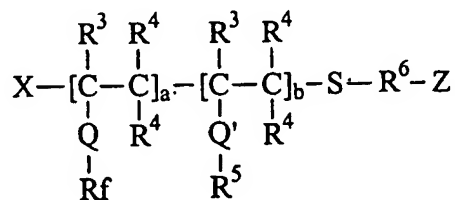
b) a isocyanate of the formula  $R^1(NCO)_x$ , wherein x is 1 to 6, wherein

$R^1$  is an aliphatic, alicyclic or aromatic group, and

c) an aliphatic compound of the formula  $R^2-(Z)_q$ , where  $R^2$  is a aliphatic group, Z is an isocyanate reactive group and q is 1 to 4.

19. The composition of claim 1, wherein said fluorochemical oligomeric component is the reaction product of

a) a fluorochemical oligomer of the formula



wherein

$R^6$  is an aliphatic or aromatic group,

$R^5$  is a non-fluorinated aliphatic group of 12 to 75 carbons atoms, and

Z is an isocyanate-reactive group, and

b) an isocyanate of the formula  $R^1(NCO)_x$ , wherein x is 1 to 6, wherein  $R^1$  is an aliphatic, alicyclic or aromatic group.

20. A coating composition comprising a mixture of:

a) a solvent; and

b) the composition of Claim 1.

21. The coating composition of claim 20 wherein said mixture comprises an aqueous solution, dispersion or suspension.

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22. The coating composition of claim 20 further comprising a surfactant.

23. The coating composition of claim 20 comprising 0.1 to 50 weight percent of said composition of claim 1 .

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24. An article comprising:  
a substrate having one or more surfaces; and  
the fluorochemical composition of Claim 1 coated on one or more surfaces of said substrate.

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25. The article of Claim 24 wherein the substrate is a fibrous substrates.

26. A method of imparting repellency and antisoiling to a substrate, having one or more surfaces, comprising the steps of:

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applying the coating composition of claim 20 onto one or more surfaces of said substrate; and

curing the coating composition at ambient or elevated temperature.

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(FILE 'HOME' ENTERED AT 14:01:44 ON 15 FEB 2006)

FILE 'HCAPLUS' ENTERED AT 14:05:05 ON 15 FEB 2006

D SAV  
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32131-17-2/BI OR 53200-31-0/BI OR 7631-86-9/BI OR  
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 L31 2 SEA ABB=ON PLU=ON L2 AND L30  
 D SCAN L31  
  
 FILE 'LREGISTRY' ENTERED AT 14:19:36 ON 15 FEB 2006  
 L32 STR  
  
 FILE 'REGISTRY' ENTERED AT 14:28:02 ON 15 FEB 2006  
 D QUE STAT L10  
 L33 43 SEA SUB=L10 SSS SAM L32  
  
 FILE 'LREGISTRY' ENTERED AT 14:30:35 ON 15 FEB 2006  
 L34 STR L32  
  
 FILE 'REGISTRY' ENTERED AT 14:39:20 ON 15 FEB 2006  
 D QUE STAT L33  
 L35 6 SEA SUB=L10 SSS SAM L34  
 D SCAN  
 D QUE STAT  
 L36 174 SEA SUB=L10 SSS FUL L34  
 L37 20 SEA ABB=ON PLU=ON L36 AND 2/NC  
 D SAV  
 SAV L36 SAS510D/A  
 D SAV  
 E URETHAN?/CNS  
 L38 1024 SEA ABB=ON PLU=ON ?URETHAN?/CNS  
 E URETHANYLBIUETYLENE/CNS  
 E UREYL?/CNS  
 E ?UREYL?/CNS  
 L39 1028 SEA ABB=ON PLU=ON ?UREYL?/CNS  
 E GUANIDIN/CNS  
 E ?GUANIDIN?/CNS  
 L40 53690 SEA ABB=ON PLU=ON ?GUANIDIN?/CNS  
 E CARBODIIMID/CNS  
 L41 674 SEA ABB=ON PLU=ON ?CARBODIIMID?/CNS  
 L42 0 SEA ABB=ON PLU=ON L36 AND (L38 OR L39 OR L40 OR L41)  
 L43 5 SEA ABB=ON PLU=ON L5 AND (L38 OR L39 OR L40 OR L41)  
 D SCAN  
 E POLYISOCYANURATE/PCT  
 L44 4637 SEA ABB=ON PLU=ON POLYISOCYANURATE/PCT  
  
 FILE 'HCAPLUS' ENTERED AT 14:54:54 ON 15 FEB 2006  
 D L1  
  
 FILE 'REGISTRY' ENTERED AT 14:54:54 ON 15 FEB 2006  
  
 FILE 'HCAPLUS' ENTERED AT 14:55:08 ON 15 FEB 2006  
 D L1 ALL  
  
 FILE 'REGISTRY' ENTERED AT 14:55:08 ON 15 FEB 2006  
 L45 1 SEA ABB=ON PLU=ON 104559-01-5/RN  
 L46 1 SEA ABB=ON PLU=ON 852161-27-4/RN  
 D SCAN  
 L47 1 SEA ABB=ON PLU=ON 112-92-5/RN  
 L48 1 SEA ABB=ON PLU=ON 53200-31-0/RN  
 D SCAN  
 L49 1 SEA ABB=ON PLU=ON 306997-46-6/RN  
 D SCAN  
 L50 1 SEA ABB=ON PLU=ON 112-96-9/RN  
 D SCAN  
 E POLYCARBODIIMIDE/PCT  
 L51 1176 SEA ABB=ON PLU=ON POLYCARBODIIMIDE/PCT  
 L52 0 SEA ABB=ON PLU=ON L44 AND L5  
 L53 0 SEA ABB=ON PLU=ON L51 AND L5  
 D QUE STAT L36

FILE 'HCAPLUS' ENTERED AT 15:04:11 ON 15 FEB 2006

L54 23393 SEA ABB=ON PLU=ON L5  
 L55 5 SEA ABB=ON PLU=ON L26  
 L56 18293 SEA ABB=ON PLU=ON L10  
 L57 238 SEA ABB=ON PLU=ON L17  
 L58 1833 SEA ABB=ON PLU=ON L24  
 D QUE STAT L17  
 D QUE STAT L24

FILE 'REGISTRY' ENTERED AT 15:07:06 ON 15 FEB 2006

L59 413 SEA ABB=ON PLU=ON L17 AND L24

FILE 'HCAPLUS' ENTERED AT 15:07:28 ON 15 FEB 2006

L60 121 SEA ABB=ON PLU=ON L59  
 D SCAN L55  
 L61 165 SEA ABB=ON PLU=ON L45/D OR L45/DP  
 L62 1 SEA ABB=ON PLU=ON L46/D OR L46/DP  
 L63 509 SEA ABB=ON PLU=ON L47/D OR L47/DP  
 L64 77 SEA ABB=ON PLU=ON L48/D OR L48/DP  
 L65 5 SEA ABB=ON PLU=ON L49/D OR L49/DP  
 L66 299 SEA ABB=ON PLU=ON L50/D OR L50/DP  
 L67 90 SEA ABB=ON PLU=ON L36  
 L68 140 SEA ABB=ON PLU=ON L57 AND L58  
 L69 3348 SEA ABB=ON PLU=ON L30  
 L70 14 SEA ABB=ON PLU=ON L37  
 D SCAN TI  
 L71 3 SEA ABB=ON PLU=ON L43  
 D SCAN TI  
 L72 0 SEA ABB=ON PLU=ON L67 AND ((L61 OR L62 OR L63 OR L64  
 OR L65 OR L66))  
 L73 64 SEA ABB=ON PLU=ON L54 AND ((L61 OR L62 OR L63 OR L64  
 OR L65 OR L66))  
 L74 56395 SEA ABB=ON PLU=ON L38  
 L75 3185 SEA ABB=ON PLU=ON L39  
 L76 144447 SEA ABB=ON PLU=ON L40  
 L77 10203 SEA ABB=ON PLU=ON L41  
 L78 387 SEA ABB=ON PLU=ON L54 AND ((L74 OR L75 OR L76 OR  
 L77) OR ?UREYLEN? OR ?URETHANYLBIURETYL? OR ?URETHAN?(A  
 )?BIURIETYL? OR ?GUANIDIN? OR ?CARBODIIMID?)  
 L79 328 SEA ABB=ON PLU=ON L54 AND ((L74 OR L75 OR L76 OR  
 L77))  
 L80 113402 SEA ABB=ON PLU=ON FIBER?/SC,SX  
 L81 0 SEA ABB=ON PLU=ON L67 AND ((L61 OR L62 OR L63 OR L64  
 OR L65 OR L66))  
 L82 3 SEA ABB=ON PLU=ON L67 AND ((L74 OR L75 OR L76 OR  
 L77) OR ?UREYLEN? OR ?URETHANYLBIURETYL? OR ?URETHAN?(A  
 )?BIURIETYL? OR ?GUANIDIN? OR ?CARBODIIMID?)  
 L83 1 SEA ABB=ON PLU=ON L1 AND L10  
 L84 557 SEA ABB=ON PLU=ON L80 AND L56  
 L85 8 SEA ABB=ON PLU=ON L80 AND L57  
 L86 140 SEA ABB=ON PLU=ON L60 OR L68  
 L87 8 SEA ABB=ON PLU=ON L86 AND L80  
 L88 270766 SEA ABB=ON PLU=ON COAT?/SC,SX  
 L89 5 SEA ABB=ON PLU=ON L86 AND L88  
 L90 2063 SEA ABB=ON PLU=ON L56 AND L88  
 L91 85 SEA ABB=ON PLU=ON L90 AND L80  
 E COATINGS/CT  
 L92 7724 SEA ABB=ON PLU=ON COATINGS/CT  
 E COATING PROCESS/CT  
 L93 125107 SEA ABB=ON PLU=ON COATING PROCESS/CT  
 L94 271789 SEA ABB=ON PLU=ON COATING MATERIALS/CT  
 E COATING MATERIALS/CT  
 L95 2026 SEA ABB=ON PLU=ON L56 AND ((L92 OR L93 OR L94))  
 L96 21863 SEA ABB=ON PLU=ON ANTISOIL? OR (ANTI OR REPEL? OR  
 PREVENT? STOP?) (A) (SOIL? OR DIRT? OR DUST? OR WATER?)

```

      OR OIL?)
L97      1931 SEA ABB=ON  PLU=ON  L96 AND L56
L98      707 SEA ABB=ON  PLU=ON  L95 AND L97
L99      3541 SEA ABB=ON  PLU=ON  ANTISOIL? OR ANTI(A)SOIL?
L100     256 SEA ABB=ON  PLU=ON  L56 AND L99
L101     1001477 SEA ABB=ON  PLU=ON  FIBER? OR FIBR?
L102     47 SEA ABB=ON  PLU=ON  L101 AND L100
L103     301171 SEA ABB=ON  PLU=ON  TEXTIL?/SC,SX
L104     99 SEA ABB=ON  PLU=ON  L56 AND L88 AND (L103 OR L80)
L105     1 SEA ABB=ON  PLU=ON  L67 AND L88 AND (L103 OR L80)
      D SCAN
L106     QUE ABB=ON  PLU=ON  FABRIC? OR TEXTILE? OR CLOTH? OR
      GARMENT? OR NAPER OR DRAPER OR WEAV? OR WOVE? OR WEFT?
      OR WEB? OR SPIN? OR SPUN? OR FIBER? OR FIBRE# OR NET
      OR NETTING?
L107     147 SEA ABB=ON  PLU=ON  L106 AND L98
L108     5 SEA ABB=ON  PLU=ON  L78 AND L107
L109     5 SEA ABB=ON  PLU=ON  L73 AND L107
L110     1 SEA ABB=ON  PLU=ON  L67 AND L107
L111     96 SEA ABB=ON  PLU=ON  L104 AND L106
L112     66 SEA ABB=ON  PLU=ON  L111 AND L96
L113     15 SEA ABB=ON  PLU=ON  L111 AND L99
L114     46 SEA ABB=ON  PLU=ON  L55 OR L70 OR L71 OR L82 OR L85 OR
      L87 OR L89 OR L105 OR (L108 OR L109 OR L110)
L115     1 SEA ABB=ON  PLU=ON  L1 AND L114
L116     57 SEA ABB=ON  PLU=ON  L114 OR L113
L117     11 SEA ABB=ON  PLU=ON  L116 NOT L114
      D QUE STAT
      D QUE STAT L114

```

=> => d que stat l114

```

L2      13 SEA FILE=REGISTRY ABB=ON  PLU=ON  (104559-01-5/BI OR
      112-92-5/BI OR 112-96-9/BI OR 1344-28-1/BI OR 25038-54-
      4/BI OR 25085-53-4/BI OR 25685-29-4/BI OR 306997-46-6/B
      I OR 32131-17-2/BI OR 53200-31-0/BI OR 7631-86-9/BI OR
      852161-27-4/BI OR 9003-39-8/BI)
L3      SCR 1918 OR 1838
L4      STR
C~~C      F~~Ak~~CF3
1  2      3  4  5

```

#### NODE ATTRIBUTES:

```

DEFAULT MLEVEL IS ATOM
GGCAT  IS LIN  SAT  AT   4
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M3-X7 C  AT   4

```

#### GRAPH ATTRIBUTES:

```

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   5

```

#### STEREO ATTRIBUTES: NONE

```

L5      29911 SEA FILE=REGISTRY SSS FUL L4 NOT L3
L6      SCR 1918 OR 1838
L7      STR

```

```

C~~C      F~~Ak~~CF3
1  2      3  4  5

```

#### NODE ATTRIBUTES:

```

DEFAULT MLEVEL IS ATOM
GGCAT  IS LIN  SAT  AT   4
DEFAULT ECLEVEL IS LIMITED

```

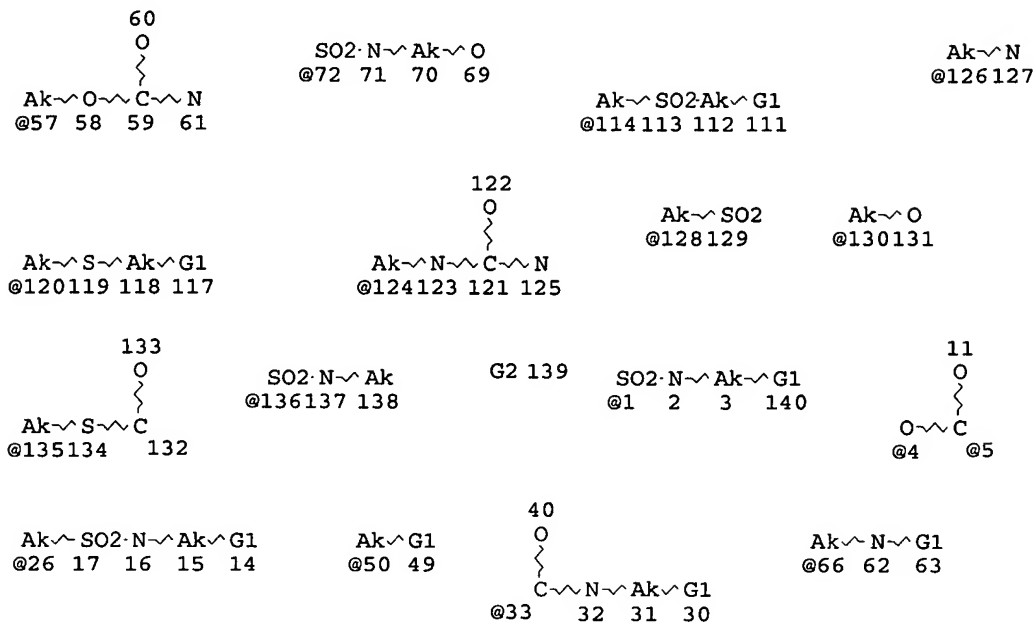


• ECOUNT IS M3-X7 C AT 4

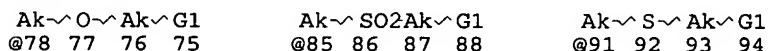
GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L8 ( 29911)SEA FILE=REGISTRY SSS FUL L7 NOT L6  
L9 STR



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VAR G1=4/5

VAR G2=57/72/114/126/120/124/128/130/135/136/1/26/50/33/66/78/85/91

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 11  
CONNECT IS E1 RC AT 40  
CONNECT IS E1 RC AT 60  
CONNECT IS E2 RC AT 92  
CONNECT IS E2 RC AT 119  
CONNECT IS E1 RC AT 122  
CONNECT IS E1 RC AT 133  
CONNECT IS E2 RC AT 134

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

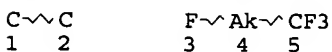
GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 70

STEREO ATTRIBUTES: NONE

L10 26835 SEA FILE=REGISTRY SUB=L8 SSS FUL L9

L11 SCR 1918 OR 1838

L12 STR



## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS LIN SAT AT 4

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M3-X7 C AT 4

## GRAPH ATTRIBUTES:

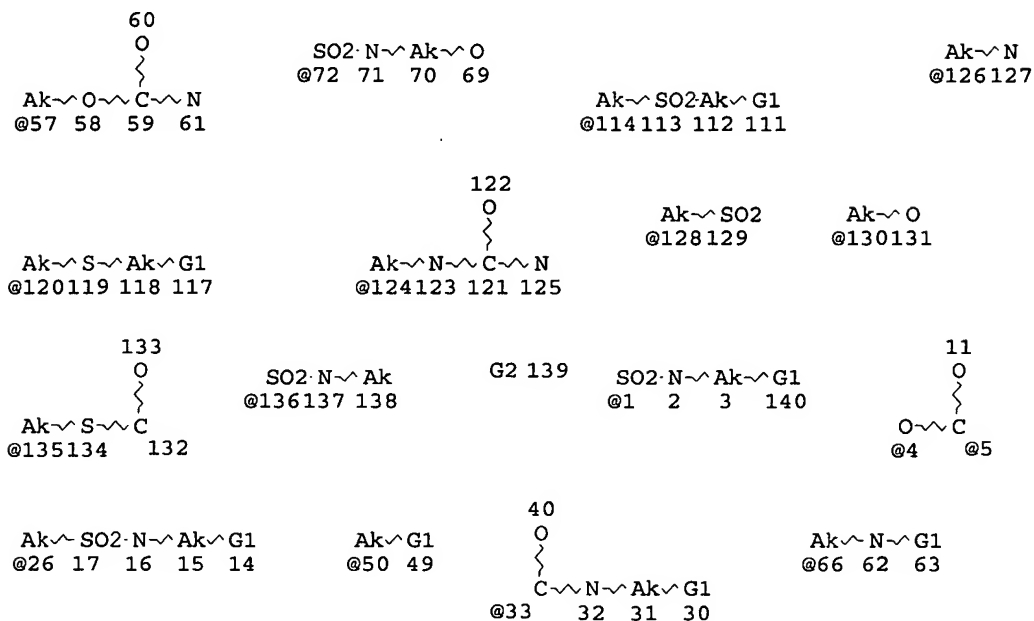
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 5

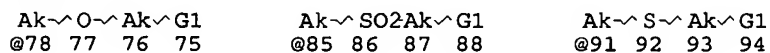
## STEREO ATTRIBUTES: NONE

L13 ( 29911)SEA FILE=REGISTRY SSS FUL L12 NOT L11

L14 STR



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VAR G1=4/5

VAR G2=57/72/114/126/120/124/128/130/135/136/1/26/50/33/66/78/85/91

## NODE ATTRIBUTES:

CONNECT IS E1 RC AT 11

CONNECT IS E1 RC AT 40

CONNECT IS E1 RC AT 60

CONNECT IS E2 RC AT 92

CONNECT IS E2 RC AT 119

CONNECT IS E1 RC AT 122

CONNECT IS E1 RC AT 133

CONNECT IS E2 RC AT 134

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 70

## STEREO ATTRIBUTES: NONE

L15 ( 26835)SEA FILE=REGISTRY SUB=L13 SSS FUL L14

L16 STR

N~C~N  
1 2 3

NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE  
L17 715 SEA FILE=REGISTRY SUB=L15 SSS FUL L16  
L18 SCR 1918 OR 1838  
L19 STR

C~C F~Ak~CF3  
1 2 3 4 5

NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
GGCAT IS LIN SAT AT 4  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M3-X7 C AT 4

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE  
L20 ( 29911)SEA FILE=REGISTRY SSS FUL L19 NOT L18  
L21 STR

60  
O  
~  
Ak~O~C~N  
@57 58 59 61  
SO2~N~Ak~O  
@72 71 70 69  
Ak~SO2Ak~G1  
@114 113 112 111  
Ak~N  
@126 127

122  
O  
~  
Ak~S~Ak~G1  
@120 119 118 117  
Ak~N~C~N  
@124 123 121 125  
Ak~SO2  
@128 129  
Ak~O  
@130 131

133  
O  
~  
Ak~S~C  
@135 134 132  
SO2~N~Ak  
@136 137 138  
G2 139  
SO2~N~Ak~G1  
@1 2 3 140  
11  
O  
~  
O~C  
@4 @5

40  
O  
~  
Ak~SO2~N~Ak~G1  
@26 17 16 15 14  
Ak~G1  
@50 49  
C~N~Ak~G1  
@33 32 31 30  
Ak~N~G1  
@66 62 63

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Ak~O~Ak~G1 Ak~SO2Ak~G1 Ak~S~Ak~G1  
@78 77 76 75 @85 86 87 88 @91 92 93 94

Page 2-A

VAR G1=4/5  
 VAR G2=57/72/114/126/120/124/128/130/135/136/1/26/50/33/66/78/85/91  
 NODE ATTRIBUTES:  
 CONNECT IS E1 RC AT 11  
 CONNECT IS E1 RC AT 40  
 CONNECT IS E1 RC AT 60  
 CONNECT IS E2 RC AT 92  
 CONNECT IS E2 RC AT 119  
 CONNECT IS E1 RC AT 122  
 CONNECT IS E1 RC AT 133  
 CONNECT IS E2 RC AT 134  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 70

STEREO ATTRIBUTES: NONE  
 L22 ( 26835)SEA FILE=REGISTRY SUB=L20 SSS FUL L21  
 L23 STR

N=C=O  
 1 2 3

NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE  
 L24 4147 SEA FILE=REGISTRY SUB=L22 SSS FUL L23  
 L26 2 SEA FILE=REGISTRY ABB=ON PLU=ON L10 AND L2  
 L34 STR

C=C~A~Ak  
 1 2 3 4

NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS M12-X100 C AT 4

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE  
 L36 174 SEA FILE=REGISTRY SUB=L10 SSS FUL L34  
 L37 20 SEA FILE=REGISTRY ABB=ON PLU=ON L36 AND 2/NC  
 L38 1024 SEA FILE=REGISTRY ABB=ON PLU=ON ?URETHAN?/CNS  
 L39 1028 SEA FILE=REGISTRY ABB=ON PLU=ON ?UREYL?/CNS  
 L40 53690 SEA FILE=REGISTRY ABB=ON PLU=ON ?GUANIDIN?/CNS  
 L41 674 SEA FILE=REGISTRY ABB=ON PLU=ON ?CARBODIIMID?/CNS  
 L43 5 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND (L38 OR L39  
 OR L40 OR L41)  
 L45 1 SEA FILE=REGISTRY ABB=ON PLU=ON 104559-01-5/RN  
 L46 1 SEA FILE=REGISTRY ABB=ON PLU=ON 852161-27-4/RN  
 L47 1 SEA FILE=REGISTRY ABB=ON PLU=ON 112-92-5/RN  
 L48 1 SEA FILE=REGISTRY ABB=ON PLU=ON 53200-31-0/RN  
 L49 1 SEA FILE=REGISTRY ABB=ON PLU=ON 306997-46-6/RN  
 L50 1 SEA FILE=REGISTRY ABB=ON PLU=ON 112-96-9/RN  
 L54 23393 SEA FILE=HCAPLUS ABB=ON PLU=ON L5

L55 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L26  
 L56 18293 SEA FILE=HCAPLUS ABB=ON PLU=ON L10  
 L57 238 SEA FILE=HCAPLUS ABB=ON PLU=ON L17  
 L58 1833 SEA FILE=HCAPLUS ABB=ON PLU=ON L24  
 L59 413 SEA FILE=REGISTRY ABB=ON PLU=ON L17 AND L24  
 L60 121 SEA FILE=HCAPLUS ABB=ON PLU=ON L59  
 L61 165 SEA FILE=HCAPLUS ABB=ON PLU=ON L45/D OR L45/DP  
 L62 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L46/D OR L46/DP  
 L63 509 SEA FILE=HCAPLUS ABB=ON PLU=ON L47/D OR L47/DP  
 L64 77 SEA FILE=HCAPLUS ABB=ON PLU=ON L48/D OR L48/DP  
 L65 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L49/D OR L49/DP  
 L66 299 SEA FILE=HCAPLUS ABB=ON PLU=ON L50/D OR L50/DP  
 L67 90 SEA FILE=HCAPLUS ABB=ON PLU=ON L36  
 L68 140 SEA FILE=HCAPLUS ABB=ON PLU=ON L57 AND L58  
 L70 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L37  
 L71 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L43  
 L73 64 SEA FILE=HCAPLUS ABB=ON PLU=ON L54 AND ((L61 OR L62  
 OR L63 OR L64 OR L65 OR L66))  
 L74 56395 SEA FILE=HCAPLUS ABB=ON PLU=ON L38  
 L75 3185 SEA FILE=HCAPLUS ABB=ON PLU=ON L39  
 L76 144447 SEA FILE=HCAPLUS ABB=ON PLU=ON L40  
 L77 10203 SEA FILE=HCAPLUS ABB=ON PLU=ON L41  
 L78 387 SEA FILE=HCAPLUS ABB=ON PLU=ON L54 AND ((L74 OR L75  
 OR L76 OR L77) OR ?UREYLEN? OR ?URETHANYLBIURETYL? OR  
 ?URETHAN?(A)?BIURIETYL? OR ?GUANIDIN? OR ?CARBODIIMID?)  
 L80 113402 SEA FILE=HCAPLUS ABB=ON PLU=ON FIBER?/SC,SX  
 L82 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND ((L74 OR L75  
 OR L76 OR L77) OR ?UREYLEN? OR ?URETHANYLBIURETYL? OR  
 ?URETHAN?(A)?BIURIETYL? OR ?GUANIDIN? OR ?CARBODIIMID?)  
 L85 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 AND L57  
 L86 140 SEA FILE=HCAPLUS ABB=ON PLU=ON L60 OR L68  
 L87 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L86 AND L80  
 L88 270766 SEA FILE=HCAPLUS ABB=ON PLU=ON COAT?/SC,SX  
 L89 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L86 AND L88  
 L92 7724 SEA FILE=HCAPLUS ABB=ON PLU=ON COATINGS/CT  
 L93 125107 SEA FILE=HCAPLUS ABB=ON PLU=ON COATING PROCESS/CT  
 L94 271789 SEA FILE=HCAPLUS ABB=ON PLU=ON COATING MATERIALS/CT  
 L95 2026 SEA FILE=HCAPLUS ABB=ON PLU=ON L56 AND ((L92 OR L93  
 OR L94))  
 L96 21863 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTISOIL? OR (ANTI OR  
 REPEL? OR PREVENT? STOP?) (A) (SOIL? OR DIRT? OR DUST?  
 OR WATER? OR OIL?)  
 L97 1931 SEA FILE=HCAPLUS ABB=ON PLU=ON L96 AND L56  
 L98 707 SEA FILE=HCAPLUS ABB=ON PLU=ON L95 AND L97  
 L103 301171 SEA FILE=HCAPLUS ABB=ON PLU=ON TEXTIL?/SC,SX  
 L105 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND L88 AND (L103  
 OR L80)  
 L106 QUE ABB=ON PLU=ON FABRIC? OR TEXTILE? OR CLOTH? OR G  
 ARMENT? OR NAPER OR DRAPER OR WEAV? OR WOVE? OR WEFT? O  
 R WEB? OR SPIN? OR SPUN? OR FIBER? OR FIBRE# OR NET OR  
 NETTING?  
 L107 147 SEA FILE=HCAPLUS ABB=ON PLU=ON L106 AND L98  
 L108 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L78 AND L107  
 L109 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L73 AND L107  
 L110 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND L107  
 L114 46 SEA FILE=HCAPLUS ABB=ON PLU=ON L55 OR L70 OR L71 OR  
 L82 OR L85 OR L87 OR L89 OR L105 OR (L108 OR L109 OR  
 L110)

=> d l114 1-46 ibib abs hitstr hitind

L114 ANSWER 1 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:735130 HCAPLUS

DOCUMENT NUMBER: 143:195199  
 TITLE: Treatment comprising water- and oil-repellent agent, treatment composition, and exhaust application to carpet  
 INVENTOR(S): Kubota, Kouji; Kanbara, Takahito; Usugaya, Mitsuhiro  
 PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan  
 SOURCE: U.S. Pat. Appl. Publ., 16 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 2005175811	A1	20050811	US 2004-772427	2004 0206

PRIORITY APPLN. INFO.: US 2004-772427  
 2004  
 0206

AB A textile having high F adhesion rate, and excellent H<sub>2</sub>O- and oil-repellency can be obtained by (1) preparing a treatment liquid comprising a H<sub>2</sub>O- and oil-repellent agent which comprises ≥1 F-containing compound selected from F-containing polymer or a F-containing low mol. weight compound, (2) adjusting pH of the treatment liquid to ≤7, (3) applying the treatment liquid to a textile, (4) treating the textile with steam, and (5) washing the textile with H<sub>2</sub>O and dehydrating the textile, where the treatment liquid comprises a water-soluble cationic polymer.  
 CF<sub>3</sub>CF<sub>2</sub>(CF<sub>2</sub>CF<sub>2</sub>)<sub>n</sub>CH<sub>2</sub>CH<sub>2</sub>COOCH:CH<sub>2</sub> (a mixture of compds.; average of n is 3.1) (150 g), 2-ethylhexyl acrylate (40 g), 3-chloro-2-hydroxypropyl methacrylate (2 g), n-lauryl mercaptan (1 g), polyoxyethylene lauryl ether (20 g), dialkyldimethylammonium chloride (10 g), tripropylene glycol (75 g) and ion exchanged water (480 g) were mixed, heated to 60°, homogenized by a high pressure homogenizer, the emulsified liquid was mixed with vinyl chloride monomer (70 g) having the purity of 99%, and 2,2'-azobis(2-amidinopropane) dihydrochloride (2 g), and copolymd. at 60° for 8 h. A carpet was treated with polyallylamine hydrochloride and this fluoropolymer.

IT 861822-42-6P 861822-43-7P 861822-44-8P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (water- and oil-repellent agent combination of water-soluble cationic polymer and fluoropolymer for treating carpet in an exhaust process)

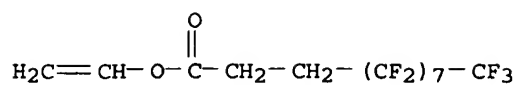
RN 861822-42-6 HCAPLUS

CN Pentadecanoic acid, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15-pentacosafuoro-, ethenyl ester, polymer with chloroethene, 3-chloro-2-hydroxypropyl 2-methyl-2-propenoate, ethenyl 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosafuorotridecanoate, ethenyl 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoroundecanoate and 2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

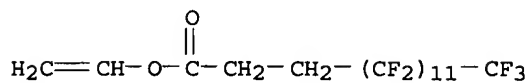
CRN 73016-32-7

CMF C13 H7 F17 O2



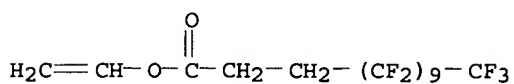
CM 2

CRN 73016-31-6  
CMF C17 H7 F25 O2



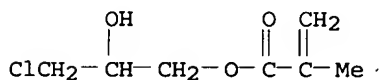
CM 3

CRN 73016-30-5  
CMF C15 H7 F21 O2



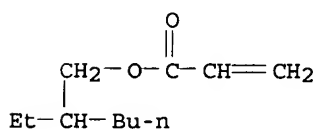
CM 4

CRN 13159-52-9  
CMF C7 H11 Cl O3



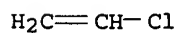
CM 5

CRN 103-11-7  
CMF C11 H20 O2



CM 6

CRN 75-01-4  
CMF C2 H3 Cl



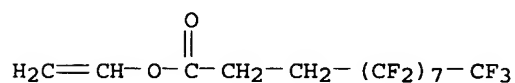
RN 861822-43-7 HCAPLUS

CN Pentadecanoic acid, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,15-pentacosafuoro-, ethenyl ester, polymer with chloroethene, 3-chloro-2-hydroxypropyl 2-methyl-2-propenoate, ethenyl 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosafuorotridecanoate, ethenyl 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoroundecanoate and octadecyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 73016-32-7

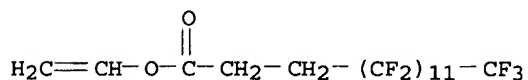
CMF C13 H7 F17 O2



CM 2

CRN 73016-31-6

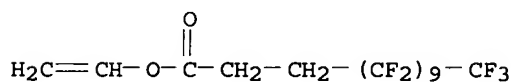
CMF C17 H7 F25 O2



CM 3

CRN 73016-30-5

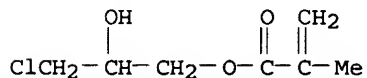
CMF C15 H7 F21 O2



CM 4

CRN 13159-52-9

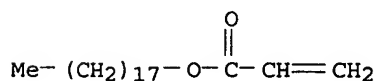
CMF C7 H11 Cl O3



CM 5

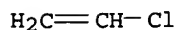
CRN 4813-57-4

CMF C21 H40 O2



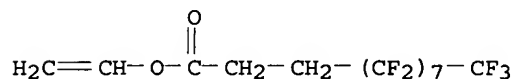


CM 6

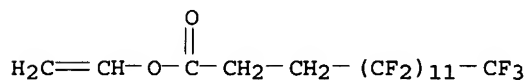
CRN 75-01-4  
CMF C2 H3 Cl

RN 861822-44-8 HCAPLUS  
 CN Pentadecanoic acid, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15-pentacosafuoro-, ethenyl ester, polymer with chloroethene, ethenyl 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosafuorotridecanoate and ethenyl 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoroundecanoate (9CI) (CA INDEX NAME)

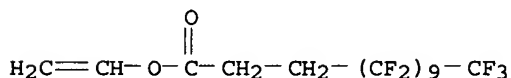
CM 1

CRN 73016-32-7  
CMF C13 H7 F17 O2

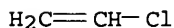
CM 2

CRN 73016-31-6  
CMF C17 H7 F25 O2

CM 3

CRN 73016-30-5  
CMF C15 H7 F21 O2

CM 4

CRN 75-01-4  
CMF C2 H3 Cl

IT 26591-12-8, Dicyandiamide-formaldehyde resin  
 RL: POF (Polymer in formulation); TEM (Technical or engineered)

material use); USES (Uses)

(water- and oil-repellent agent combination of water-soluble cationic polymer and fluoropolymer for treating carpet in an exhaust process)

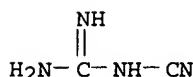
RN 26591-12-8 HCAPLUS

CN Guanidine, cyano-, polymer with formaldehyde (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 461-58-5

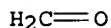
CMF C2 H4 N4



CM 2

CRN 50-00-0

CMF C H2 O



IC ICM B05D003-02

ICS B32B033-00

INCL 428096000; 427384000; 427377000; 428097000

CC 40-5 (Textiles and Fibers)

IT 861822-42-6P 861822-43-7P 861822-44-8P

861822-45-9P

RL: IMF (Industrial manufacture); POF (Polymer in formulation);

TEM (Technical or engineered material use); PREP (Preparation);

USES (Uses)

(water- and oil-repellent agent combination of water-soluble cationic polymer and fluoropolymer for treating carpet in an exhaust process)

IT 9002-98-6 9003-05-8D, Polyacrylamide, cationic 9003-08-1, Melamine-formaldehyde resin 9005-25-8D, Starch, cationic, uses 9011-05-6, Formaldehyde-urea copolymer 26591-12-8, Dicyandiamide-formaldehyde resin 71550-12-4, Polyallylamine hydrochloride

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(water- and oil-repellent agent combination of water-soluble cationic polymer and fluoropolymer for treating carpet in an exhaust process)

L114 ANSWER 2 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:573248 HCAPLUS

DOCUMENT NUMBER: 143:172519

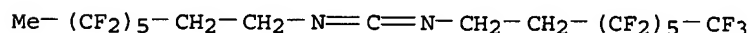
TITLE: N,N'-Bis(1H,1H,2H,2H-perfluorooctyl)carbodiimide

AUTHOR(S): Aizpurua, Jesus M.; Palomo, Claudio; Loinaz, Iraida

CORPORATE SOURCE: Departamento de Quimica Organica-I, Universidad del Pais Vasco, San Sebastian, 20018, Spain

SOURCE: Handbook of Fluorous Chemistry (2004), 457-459. Editor(s): Gladysz, John A.; Curran, Dennis P.; Horvath, Istvan T. Wiley-VCH Verlag GmbH & Co. KGaA: Weinheim, Germany. CODEN: 69GYXQ; ISBN: 3-527-30617-X

DOCUMENT TYPE: Conference  
 LANGUAGE: English  
 AB C<sub>6</sub>H<sub>13</sub>CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>, prepared in 88% yield from C<sub>6</sub>H<sub>13</sub>CH<sub>2</sub>CH<sub>2</sub>I, was acylated with triphosgene to give 91% (C<sub>6</sub>H<sub>13</sub>CH<sub>2</sub>CH<sub>2</sub>NH)<sub>2</sub>CO, which was treated with Ph<sub>3</sub>PBr<sub>2</sub> and Et<sub>3</sub>N in C<sub>6</sub>H<sub>14</sub> to give 99% title compound  
 IT 860804-24-6P, N,N'-Bis(1H,1H,2H,2H-perfluorooctyl)carbodiimide  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation from 1H,1H,2H,2H-perfluorooctyl iodide)  
 RN 860804-24-6 HCAPLUS  
 CN 1-Octanamine, N-[(3,3,4,4,5,5,6,6,7,7-decafluorooctyl)carbonimidoyl]-3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro- (9CI) (CA INDEX NAME)



CC 23-4 (Aliphatic Compounds)  
 IT 860804-24-6P, N,N'-Bis(1H,1H,2H,2H-perfluorooctyl)carbodiimide  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation from 1H,1H,2H,2H-perfluorooctyl iodide)  
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 3 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:570956 HCAPLUS  
 DOCUMENT NUMBER: 143:99012  
 TITLE: Water-repellent coating film having low refractive index  
 INVENTOR(S): Motoyama, Kenichi; Tani, Yoshihiro  
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan  
 SOURCE: PCT Int. Appl., 34 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005059050	A1	20050630	WO 2004-JP18921	2004 1217

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: JP 2003-421057 A 2003  
 1218

AB A coating film having a refractive index of 1.28-1.41 and a water contact angle of 90-115° is formed by preparing a reaction

mixture containing  $\text{Si}(\text{OR})_4$  ( $\text{R} = \text{C1-5 alkyl}$ ),  $\text{CF}_3(\text{CF}_2)_n\text{CH}_2\text{CH}_2\text{Si}(\text{OR}_1)_3$  ( $\text{R}_1 = \text{C1-5 alkyl}$ ;  $n = 0-12$ ),  $\text{H}_2\text{NCONH}(\text{CH}_2)_m\text{Si}(\text{OR}_2)_3$  ( $\text{R}_2 = \text{C1-5 alkyl}$ ;  $m = 1-5$ ), an alc.  $\text{R}_3\text{CH}_2\text{OH}$  [ $\text{R}_3 = \text{H}$ , (un)substituted  $\text{C1-12 alkyl}$ ], and oxalic acid at a specific ratio; forming a solution of a polysiloxane by heating the reaction mixture at  $40-180^\circ$  in the absence of water; applying a coating liquid containing the solution to the surface of a base; and heat curing the coating film at  $40-450^\circ$  to closely adhere the coating film to the base surface. The coating is useful for forming a scratch- and soiling-resistant antireflective film on a glass substrate.

IT 856215-25-3, Tetraethoxysilane-3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltrimethoxysilane- $\gamma$ -ureidopropyltriethoxysilane copolymer

RL: PRP (Properties); TEM (Technical or engineered material use);

USES (Uses)

(water-repellent coating film having low refractive index and high hardness)

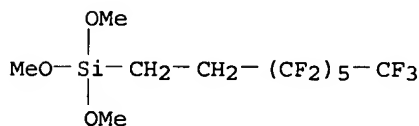
RN 856215-25-3 HCAPLUS

CN Silicic acid ( $\text{H}_4\text{SiO}_4$ ), tetraethyl ester, polymer with [3-(triethoxysilyl)propyl]urea and trimethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane (9CI) (CA INDEX NAME)

CM 1

CRN 85857-16-5

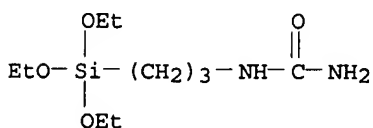
CMF C11 H13 F13 O3 Si



CM 2

CRN 23779-32-0

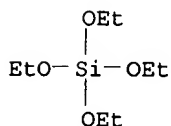
CMF C10 H24 N2 O4 Si



CM 3

CRN 78-10-4

CMF C8 H20 O4 Si



IC ICM C09D183-04

ICS C09D005-16

CC 42-10 (Coatings, Inks, and Related Products)

IT 856215-25-3, Tetraethoxysilane-3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltrimethoxysilane- $\gamma$ -ureidopropyltriethoxysilane copolymer 856215-26-4,  $\gamma$ -Aminopropyltriethoxysilane- $\gamma$ -glycidopropyltrimethoxysilane-tetraethoxysilane-3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyltrimethoxysilane- $\gamma$ -ureidopropyltriethoxysilane copolymer  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (water-repellent coating film having low refractive index and high hardness)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 4 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:564725 HCAPLUS

DOCUMENT NUMBER: 143:79779

TITLE: Coating film having low refractive index and large water contact angle

INVENTOR(S): Tani, Yoshihiro; Motoyama, Kenichi

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005059051	A1	20050630	WO 2004-JP18922	2004 1217

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: JP 2003-421828 A  
 2003  
 1219

AB The coating film, having a refractive index of 1.28-1.38 and a water contact angle of 90-115°, is formed by preparing a solution of a polysiloxane by heating a reaction mixture containing Si(OR)<sub>4</sub> (R = C1-5 alkyl), (R<sub>10</sub>)<sub>3</sub>SiCH<sub>2</sub>CH<sub>2</sub>(CF<sub>2</sub>)<sub>n</sub>CH<sub>2</sub>CH<sub>2</sub>Si(OR<sub>1</sub>)<sub>3</sub> (R<sub>1</sub> = C1-5 alkyl; n = 1-13), an alc. R<sub>2</sub>CH<sub>2</sub>OH [R<sub>2</sub> = H, (un)substituted C1-12 alkyl], and oxalic acid at a specific ratio at 50-180° in the absence of water; applying a coating liquid containing the solution to the surface of a base; and curing coating film by heating at 80-450° to closely adhere the coating film to the base surface. The coating is useful for forming a scratch- and soiling-resistant antireflective film on a glass substrate.

IT 856009-44-4

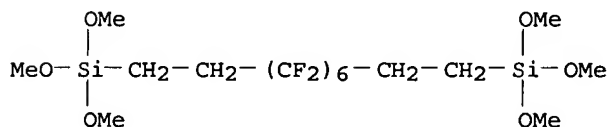
RL: TEM (Technical or engineered material use); USES (Uses)  
 (coating film having low refractive index and large water contact angle)

RN 856009-44-4 HCAPLUS  
 CN Silicic acid (H<sub>4</sub>SiO<sub>4</sub>), tetraethyl ester, polymer with  
 6,6,7,7,8,8,9,9,10,10,11,11-dodecafluoro-3,3,14,14-tetramethoxy-  
 2,15-dioxo-3,14-disilahexadecane, [3-(triethoxysilyl)propyl]urea  
 and trimethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane  
 (9CI) (CA INDEX NAME)

CM 1

CRN 94403-04-0

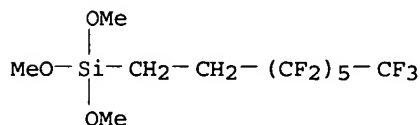
CMF C16 H26 F12 O6 Si2



CM 2

CRN 85857-16-5

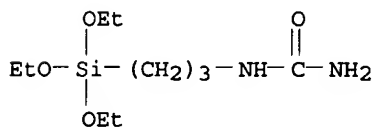
CMF C11 H13 F13 O3 Si



CM 3

CRN 23779-32-0

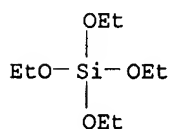
CMF C10 H24 N2 O4 Si



CM 4

CRN 78-10-4

CMF C8 H20 O4 Si



IC ICM C09D183-10

ICS C09D005-16

CC 42-10 (Coatings, Inks, and Related Products)

IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 404575-06-0

856009-42-2 856009-43-3 856009-44-4

RL: TEM (Technical or engineered material use); USES (Uses)  
(coating film having low refractive index and large water  
contact angle)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L114 ANSWER 5 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:453824 HCAPLUS

DOCUMENT NUMBER: 142:483562

TITLE: Fluorochemical oligomeric compositions with  
good **antisoiling** for fibrous  
substrates

INVENTOR(S): Jariwala, Chetan P.; Coppens, Dirk M.;  
Godefroidt, Frank A. H. M.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: U.S. Pat. Appl. Publ., 17 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005113508	A1	20050526	US 2003-723510	2003 1126
WO 2005054567	A1	20050616	WO 2004-US35723	2004 1028

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US 2005113508

A1

20050526

US 2003-723510

2003

1126

WO 2005054567

A1

20050616

WO 2004-US35723

2004

1028

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,  
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,  
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,  
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,  
PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,  
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,  
CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,  
MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,  
CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-723510 A

2003

1126

AB Title compns. comprising a fluorochem. oligomeric component and an  
**antisoiling** component desirable **antisoiling**  
properties, as well as oil, water and stain repellency to fibrous  
substrates. Thus, 411.0 g 2-[methyl[(nonafluorobutyl)sulfonyl]ami  
no]ethyl acrylate and 19.5 g 2-mercaptoethanol were reacted in the  
presence of V 59 (2,2'-azobis[2-methyl-butanenitrile]) at  
65° for 15 h, 0.0820 mol of the resulting compound was  
reacted with 0.082 mol octadecylisocyanate at 85° for 17 h,  
mixed with sodium dodecylbenzenesulfonate to give an emulsion with  
solid content 30%, which was sprayed on a carpet and dried at  
120°, showing good water and oil  
repellency and **antisoiling** property.

IT 104559-01-5DP, Desmodur N 3300, reaction products with  
isocyanates and perfluorooligomers having hydroxy groups  
852161-27-4DP, reaction products with isocyanates and  
alcs.

RL: IMF (Industrial manufacture); POF (Polymer in formulation);

TEM (Technical or engineered material use); PREP (Preparation);  
USES (Uses)

(blend with acrylic polymer; fluorochem. oligomeric compns.  
with good **antisoiling** for fibrous substrates)

RN 104559-01-5 HCAPLUS

CN Desmodur N 3300 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 852161-27-4 HCAPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl  
ester, telomer with 2-mercaptoethanol and octadecyl 2-propenoate  
(9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2

CMF C2 H6 O S

HO-CH<sub>2</sub>-CH<sub>2</sub>-SH

CM 2

CRN 425664-29-5

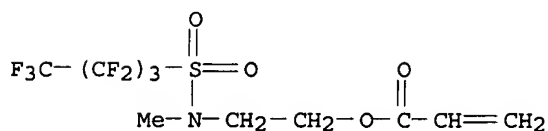
CMF (C21 H40 O2 . C10 H10 F9 N O4 S)x

CCI PMS

CM 3

CRN 67584-55-8

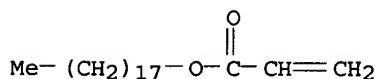
CMF C10 H10 F9 N O4 S



CM 4

CRN 4813-57-4

CMF C21 H40 O2



IT 25038-54-4, Polyamide 6, uses 32131-17-2,

Polyamide 66, uses

RL: TEM (Technical or engineered material use); USES (Uses)

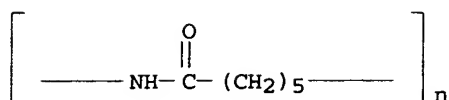
(fiber, substrate; fluorochem. oligomeric compns.

with good **antisoiling** for fibrous substrates)

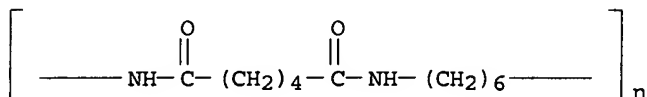
RN 25038-54-4 HCAPLUS

CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)





RN 32131-17-2 HCAPLUS  
 CN Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl] (9CI)  
 (CA INDEX NAME)



IT 112-92-5DP, Stearyl alcohol, reaction products with isocyanates and perfluorooligomers having hydroxy groups  
 53200-31-0DP, Desmodur N 100, reaction products with perfluorooligomers having hydroxy groups and alcs.  
 306997-46-6DP, reaction products with isocyanates and alcs.  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (oligomer, blend with acrylic polymer; fluorochem. oligomeric compns. with good antisoiling for fibrous substrates)  
 RN 112-92-5 HCAPLUS  
 CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)

HO-(CH<sub>2</sub>)<sub>17</sub>-Me

RN 53200-31-0 HCAPLUS  
 CN Desmodur N 100 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 306997-46-6 HCAPLUS  
 CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptoethanol (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2  
 CMF C2 H6 O S

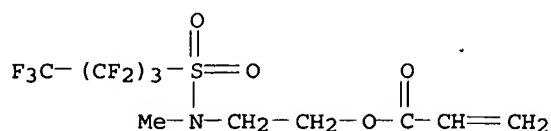
HO-CH<sub>2</sub>-CH<sub>2</sub>-SH

CM 2

CRN 306997-45-5  
 CMF (C10 H10 F9 N O4 S)x  
 CCI PMS

CM 3

CRN 67584-55-8  
 CMF C10 H10 F9 N O4 S



- IT 112-96-9DP, Octadecylisocyanate, reaction products with perfluorooligomers having hydroxy groups  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (optionally blend with acrylic polymer; fluorochem. oligomeric compns. with good **antisoiling** for fibrous substrates)
- RN 112-96-9 HCAPLUS  
 CN Octadecane, 1-isocyanato- (9CI) (CA INDEX NAME)
- OCN-(CH<sub>2</sub>)<sub>17</sub>-Me
- IC ICM C08K003-00  
 INCL 524556000; 524555000  
 CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 40
- ST fluorochem oligomeric compn **antisoiling** fibrous substrate; methylnonafluorobutylsulfonaminoethyl acrylate mercaptoethanol telomer octadecylisocyanate carbamate compn carpet treatment
- IT Polyamide fibers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (6, Zeftron, substrates; fluorochem. oligomeric compns. with good **antisoiling** for fibrous substrates)
- IT Polyamide fibers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (66, substrates; fluorochem. oligomeric compns. with good **antisoiling** for fibrous substrates)
- IT Fluoropolymers, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (acrylic, blend with acrylic polymers; fluorochem. oligomeric compns. with good **antisoiling** for fibrous substrates)
- IT Acrylic polymers, uses  
 Aminoplasts  
 Silsesquioxanes  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (**antisoiling** agents; fluorochem. oligomeric compns. with good **antisoiling** for fibrous substrates)
- IT Coating materials  
 (**antisoiling**, water-resistant; fluorochem. oligomeric compns. with good **antisoiling** for fibrous substrates)
- IT Acrylic polymers, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (fluoroalkyl group-containing, blend with acrylic polymers; fluorochem. oligomeric compns. with good **antisoiling** for fibrous substrates)
- IT Polyamides, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (fluorochem. oligomeric compns. with good **antisoiling** for fibrous substrates)
- IT Coating materials  
 (oil-resistant, **antisoiling**-; fluorochem. oligomeric compns. with good **antisoiling** for fibrous substrates)

- IT Fluoropolymers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (oligomers; fluorochem. oligomeric compns. with good  
**antisoiling** for fibrous substrates)
- IT Carpets  
 Fibrous materials  
 Wool  
 (substrates; fluorochem. oligomeric compns. with good  
**antisoiling** for fibrous substrates)
- IT Polypropene fibers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (substrates; fluorochem. oligomeric compns. with good  
**antisoiling** for fibrous substrates)
- IT Polymers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (water-soluble, **antisoiling** agents; fluorochem.  
 oligomeric compns. with good **antisoiling** for fibrous  
 substrates)
- IT 25685-29-4P, Ethyl methacrylate-methyl methacrylate copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered  
 material use); PREP (Preparation); USES (Uses)  
 (**antisoiling** agent, blend with fluorooligomer;  
 fluorochem. oligomeric compns. with good **antisoiling**  
 for fibrous substrates)
- IT 104559-01-5DP, Desmodur N 3300, reaction products with  
 isocyanates and perfluorooligomers having hydroxy groups  
 852161-27-4DP, reaction products with isocyanates and  
 alcs.  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
 TEM (Technical or engineered material use); PREP (Preparation);  
 USES (Uses)  
 (blend with acrylic polymer; fluorochem. oligomeric compns.  
 with good **antisoiling** for fibrous substrates)
- IT 1344-28-1, Alumina, uses 7631-86-9, Silica, uses 9003-39-8,  
 Polyvinyl pyrrolidone  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (colloidal, **antisoiling** agent; fluorochem. oligomeric  
 compns. with good **antisoiling** for fibrous substrates)
- IT 25038-54-4, Polyamide 6, uses 25085-53-4, Isotactic  
 polypropylene 32131-17-2, Polyamide 66, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (**fiber**, substrate; fluorochem. oligomeric compns.  
 with good **antisoiling** for fibrous substrates)
- IT 112-92-5DP, Stearyl alcohol, reaction products with  
 isocyanates and perfluorooligomers having hydroxy groups  
 53200-31-0DP, Desmodur N 100, reaction products with  
 perfluorooligomers having hydroxy groups and alcs.  
 306997-46-6DP, reaction products with isocyanates and  
 alcs.  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
 TEM (Technical or engineered material use); PREP (Preparation);  
 USES (Uses)  
 (oligomer, blend with acrylic polymer; fluorochem. oligomeric  
 compns. with good **antisoiling** for fibrous substrates)
- IT 112-96-9DP, Octadecylisocyanate, reaction products with  
 perfluorooligomers having hydroxy groups  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
 TEM (Technical or engineered material use); PREP (Preparation);  
 USES (Uses)  
 (optionally blend with acrylic polymer; fluorochem. oligomeric  
 compns. with good **antisoiling** for fibrous substrates)

L114 ANSWER 6 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:120819 HCAPLUS

DOCUMENT NUMBER: 140:165096

TITLE: Fluorinated urethane compounds and

INVENTOR(S): compositions containing the same  
Yamamoto, Ikuo; Kusumi, Kayo; Yoshioka,  
Takuya; Yamaguchi, Fumihiko  
PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan  
SOURCE: PCT Int. Appl., 25 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013089	A1	20040212	WO 2003-JP9903	2003 0805

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2493985	AA	20040212	CA 2003-2493985	2003 0805
EP 1548001	A1	20050629	EP 2003-766731	2003 0805

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRIORITY APPLN. INFO.: JP 2002-228795 A  
2002  
0806  
WO 2003-JP9903 W  
2003  
0805

AB Fluorinated urethane compds. [RfA1(X1(OH))(Y1)a-OC(:O)NH]mI[NHC(:O)OY2]n[NHC(:O)O((ClCH2)X2O)bR1]k can impart high water- and oil-repellency, wherein I = a group derived from a polyisocyanate compound by removing the isocyanato groups; Rf = C2-21 perfluoroalkyl; A1 = a direct bond or C1-21 divalent organic group; X1, X2 = C2-5 trivalent, linear or branched aliphatic group; Y1 = a divalent organic group containing C0-5, N0-2, and  $\geq 1$  hydrogen atom ( $\geq 1$  carbon atom or  $\geq 1$  nitrogen atom must be present); Y2 = a monovalent organic group which may have a hydroxyl group; and R1 = H or C1-10 alkyl. Thus, 20.1 g 3-perfluorooctyl-1,2-propanediol obtained from 3-perfluorooctyl-1,2-epoxypropane and 7.79 g Sumidur N 3300 were reacted to give 25.3 g hydroxy-containing perfluorooctylpropyl substituted hexamethylene diisocyanate isocyanurate, 5 g of which was emulsified in the presence of polyethylene glycol alkyl ether and sodium  $\alpha$ -olefinsulfonate, applied on a carpet and heat-cured to give a test piece showing good water and oil repellency and anticontamination.

IT 653600-20-5P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation);

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      (preparation of fluorinated urethane compds. for compns.)

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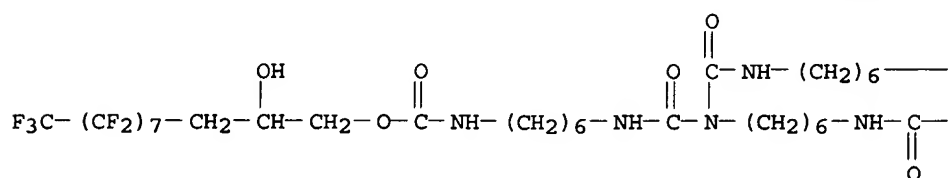
CN 2,9,11,13,20-Pentaazaheneicosanedioic acid, 11-[6-

CM 1

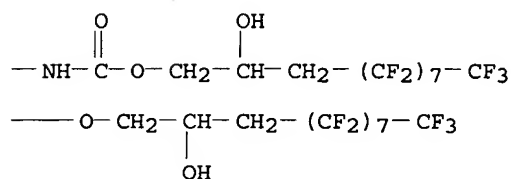
CRN 653600-19-2

CMF C56 H59 F51 N6 O11

PAGE 1-A



PAGE 1-B



IT 653600-19-2P

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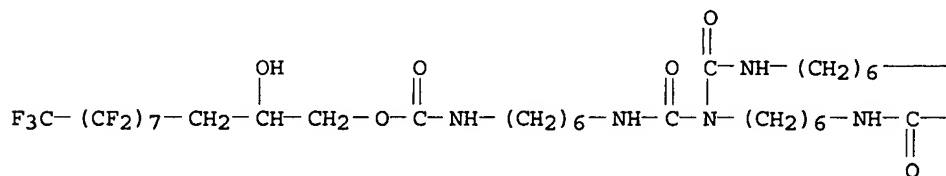
      (preparation of fluorinated urethane compds. for compns.)

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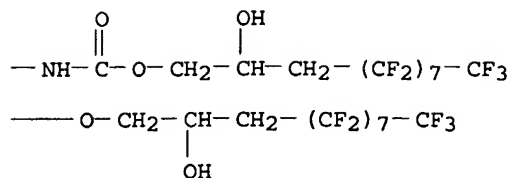
CA	999999 19 2 Acridone
CN	2,9,11,13,20-Pentaazaheneicosanedioic acid, 11-[6-

[[[(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl)oxy]carbonyl]amino]hexyl]-10,12-dioxo-, bis(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C07C275-62  
 ICS C09K003-00; C09K003-18; C07D251-34; D06M015-576  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 40  
 IT 653600-20-5P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
 PRP (Properties); TEM (Technical or engineered material use); PREP  
 (Preparation); USES (Uses)  
 (preparation of fluorinated urethane compds. for compns.)  
 IT 653600-17-0P 653600-19-2P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (preparation of fluorinated urethane compds. for compns.)

L114 ANSWER 7 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:75007 HCAPLUS  
 DOCUMENT NUMBER: 141:225411  
 TITLE: Fluorinated heterocyclic compounds: an assay  
 on the photochemistry of some fluorinated  
 1-oxa-2-azoles: an expedient route to  
 fluorinated heterocycles  
 AUTHOR(S): Buscemi, Silvestre; Pace, Andrea; Pibiri,  
 Ivana; Vivona, Nicolo; Caronna, Tullio  
 CORPORATE SOURCE: Dipartimento di Chimica Organica "E. Paterno",  
 Universita degli Studi di Palermo, Palermo,  
 I-90128, Italy  
 SOURCE: Journal of Fluorine Chemistry (2004), 125(2),  
 165-173  
 CODEN: JFLCAR; ISSN: 0022-1139  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 141:225411

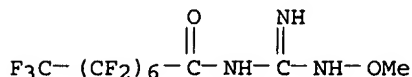
AB Photoinduced heterocyclic rearrangements of O-N bond-containing azoles  
 are claimed in the synthesis of target fluorinated heterocyclic  
 compds. In this context, the photochem. behavior of some  
 fluorinated 1,2,4-oxadiazoles was studied. Irradiations of  
 3-amino-5-perfluoroalkyl-1,2,4-oxadiazoles at  $\lambda = 313$  nm in  
 MeOH gave open-chain products arising from a reaction of the  
 nucleophilic solvent with either the 1st formed ring-photolytic  
 species or with a nitrilimine moiety generated from it.  
 Differently, irradiations in MeOH with the presence of NEt<sub>3</sub> (TEA)  
 followed competing phototransposition pathways leading to the  
 ring-isomers 2-amino-5-perfluoroalkyl-1,3,4-oxadiazoles (major  
 component) and the ring degenerate isomers 5-amino-3-  
 perfluoroalkyl-1,2,4-oxadiazoles (minor component). However,  
 3-amino-5-polyfluorophenyl-1,2,4-oxadiazoles underwent  
 ring-photoisomerization into 1,3,4-oxadiazoles when irradiations  
 were carried out at  $\lambda = 254$  nm. In turn, the irradiation of  
 the 3-phenyl-5-perfluoroheptyl-1,2,4-oxadiazole at  $\lambda = 254$   
 nm in MeOH gave the solvolysis product, but no ring-isomerization  
 was observed. Some mechanistic considerations are reported, and some  
 applications in the synthesis of target fluorinated  
 1,3,4-oxadiazoles are claimed.

IT 748813-45-8P, N-Perfluorooctanoyl-O-methyl-N'-

hydroxyguanidine

RL: SPN (Synthetic preparation); PREP (Preparation)  
(photochem. of fluorinated 1,2,4-oxadiazoles including  
methanolysis and ring rearrangement)

RN 748813-45-8 HCAPLUS

CN Octanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-N-  
[imino(methoxyamino)methyl]- (9CI) (CA INDEX NAME)

CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 74

IT 361448-20-6P, [5-(2,3,5,6-Tetrafluoro-4-methoxyphenyl)-1,2,4-  
oxadiazol-3-yl]amine 500129-59-9P, [3-(Pentadecafluoroheptyl)-  
1,2,4-oxadiazol-5-yl]amine 748813-44-7P, N-  
Pentadecafluorooctanoyl-N'-methoxybenzenecarboximidamide  
748813-45-8P, N-Perfluorooctanoyl-O-methyl-N'-  
hydroxyguanidine 748813-46-9P, N-Perfluorobutanoyl-O-methyl-N'-  
hydroxyguanidine 748813-47-0P 748813-48-1P 748813-49-2P,  
[5-(Heptafluoropropyl)-1,3,4-oxadiazol-2-yl]amine 748813-50-5P,  
[3-(Heptafluoropropyl)-1,2,4-oxadiazol-5-yl]amine 748813-51-6P,  
[5-(2,3,4,5-Tetrafluorophenyl)-1,3,4-oxadiazol-2-yl]amine  
748813-52-7P, [5-(Pentafluorophenyl)-1,3,4-oxadiazol-2-yl]amine  
748813-53-8P, [5-(2,3,5-Trifluoro-4-methoxyphenyl)-1,2,4-oxadiazol-  
3-yl]amineRL: SPN (Synthetic preparation); PREP (Preparation)  
(photochem. of fluorinated 1,2,4-oxadiazoles including  
methanolysis and ring rearrangement)REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L114 ANSWER 8 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:951257 HCAPLUS

DOCUMENT NUMBER: 140:6144

TITLE: Antisoiling oil-  
repellent water-repellent fluorochemical compositions  
for treatment of fibrous substratesINVENTOR(S): Audenaert, Frans A.; Dams, Rudolf J.;  
Buckanin, Richard S.; Flynn, Richard M.;  
Vitcak, Daniel R.; Elsbernd, Cheryl L. S.;  
Jariwala, Chetan P.; McAlister, E. Steven;  
Vander Elst, Pierre J.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003100158	A1	20031204	WO 2003-US16341	

2003  
0523W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,  
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,  
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,

MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC,  
SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ,  
VC, VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
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DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL,  
PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG  
CA 2493857 AA 20031204 CA 2003-2493857 2003  
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AU 2003239603 A1 20031212 AU 2003-239603 2003  
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EP 1507917 A1 20050223 EP 2003-734154 2003  
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EE, HU, SK  
BR 2003011249 A 20050315 BR 2003-11249 2003  
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JP 2005527674 T2 20050915 JP 2004-507594 2003  
0523  
PRIORITY APPLN. INFO.: US 2002-383392P P 2002  
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WO 2003-US16341 W 2003  
0523

AB Fluorochem. composition consists of a dispersion or a solution of a fluorinated compound obtained from reaction products of (I) a fluorinated polyether according to the formula: Rf-Q-Tk (I) wherein Rf represents a monovalent perfluorinated polyether group having a mol. weight of at least 750 g/mol, Q represents a chemical bond or a divalent or trivalent organic linking group, T represents a functional group capable of reacting with an isocyanate and k is 1 or 2, (II) an isocyanate component selected from a polyisocyanate compound that has at least 3 isocyanate groups or a mixture of polyisocyanate compds. wherein the average number of isocyanate groups per mol. is more than 2, and (III) optionally one or more co-reactants capable of reacting with an isocyanate group. Thus, polyester-cotton fabrics (e.g., carpet) were coating with a composition containing 2-butanone oxime-blocked reaction products of Voranate M 220 and poly(hexafluoropropylene oxide) heptafluoropropyl 1-((2-hydroxyethyl)aminocarbonyl) tetrafluoroethyl ether.

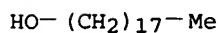
IT 112-92-5DP, Stearyl alcohol, reaction products with fluorinated compound and isocyanates 34454-97-2DP, reaction products with fluorinated compound and isocyanates 34455-00-0DP, reaction products with fluorinated compound and isocyanates 53200-31-0DP, Desmodur N 100, reaction products with fluorinated compound 67584-55-8DP, reaction products with fluorinated compound and isocyanates 104559-01-5DP, Desmodur N 3300, reaction products with fluorinated compound  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)



(production of **antisoiling oil-repellent water-repellent**  
fluorochem. compns. for treatment of fibrous substrates)

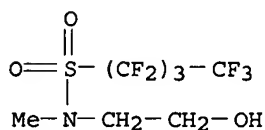
RN 112-92-5 HCAPLUS

CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)



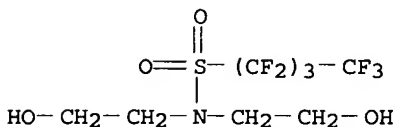
RN 34454-97-2 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)-N-methyl- (9CI) (CA INDEX NAME)



RN 34455-00-0 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



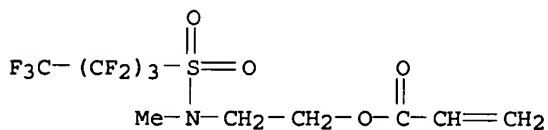
RN 53200-31-0 HCAPLUS

CN Desmodur N 100 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 67584-55-8 HCAPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester (9CI) (CA INDEX NAME)



RN 104559-01-5 HCAPLUS

CN Desmodur N 3300 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC ICM D06M015-576

ICS C09D175-04; D06M015-53

CC 40-9 (Textiles and Fibers)

Section cross-reference(s): 42

ST **antisoiling oil repellent**

**water** fluorochem compn treatment fibrous substrate

IT **Coating materials**

(antisoiling; production of **antisoiling**

**oil-repellent water-**

**repellent** fluorochem. compns. for treatment of fibrous substrates)

IT **Textiles**

- (cotton-polyester; production of **antisoiling oil-repellent water-repellent** fluorochem. compns. for treatment of fibrous substrates)
- IT **Coating materials**  
(oil- and water-resistant; production of **antisoiling oil-repellent water-repellent** fluorochem. compns. for treatment of fibrous substrates)
- IT Polyurethanes, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyoxyalkylene-, fluorine-containing; production of **antisoiling oil-repellent water-repellent** fluorochem. compns. for treatment of fibrous substrates)
- IT Fluoropolymers, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyoxyalkylene-polyurethane-; production of **antisoiling oil-repellent water-repellent** fluorochem. compns. for treatment of fibrous substrates)
- IT Polyoxyalkylenes, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyurethane-, fluorine-containing; production of **antisoiling oil-repellent water-repellent** fluorochem. compns. for treatment of fibrous substrates)
- IT Carpets  
Oilproofing agents  
Soilproofing agents  
Waterproofing agents  
(production of **antisoiling oil-repellent water-repellent** fluorochem. compns. for treatment of fibrous substrates)
- IT 96-29-7, 2-Butanone oxime  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(blocking agent; production of **antisoiling oil-repellent water-repellent** fluorochem. compns. for treatment of fibrous substrates)
- IT 112-00-5, Arquad 12-50 28724-32-5, Ethoquad 18-25 54116-08-4, Sermul EA 266  
RL: MOA (Modifier or additive use); USES (Uses)  
(emulsifier; production of **antisoiling oil-repellent water-repellent** fluorochem. compns. for treatment of fibrous substrates)
- IT 112-92-5DP, Stearyl alcohol, reaction products with fluorinated compound and isocyanates 822-06-0DP, Hexamethylene diisocyanate, reaction products with fluorinated compound 3779-63-3DP, Tris(6-isocyanatohexyl)isocyanurate, reaction products with fluorinated compound 5124-30-1DP, Methylene bis(4-cyclohexyl isocyanate), reaction products with fluorinated compound 9016-87-9DP, Voranate M 220, reaction products with fluorinated compound and optionally glycerol monostearate 25119-62-4DP, Allyl alcohol-styrene copolymer, reaction products with fluorinated compound and isocyanates 31566-31-1DP, Glycerol monostearate, reaction products with fluorinated compound and isocyanates 34454-97-2DP, reaction products with fluorinated compound and isocyanates 34455-00-0DP, reaction products with fluorinated compound and isocyanates 53200-31-0DP, Desmodur N 100, reaction products with fluorinated compound 67584-55-8DP, reaction products with

fluorinated compound and isocyanates 79103-62-1DP, Desmodur W, reaction products with fluorinated compound 104559-01-5DP, Desmodur N 3300, reaction products with fluorinated compound 118550-50-8DP, Tolonate HDT, reaction products with fluorinated compound 627909-42-6DP, Poly(hexafluoropropylene oxide) heptafluoropropyl 1-((2-hydroxyethyl)aminocarbonyl) tetrafluoroethyl ether, reaction products with isocyanates 627909-43-7DP, Poly(hexafluoropropylene oxide) heptafluoropropyl 1-((2,3-dihydroxypropyl)aminocarbonyl)tetrafluoroethyl ether, reaction products with isocyanates  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production of **antisoiling oil-repellent water-repellent** fluorochem. compns. for treatment of fibrous substrates)

IT 98-08-8,  $\alpha,\alpha,\alpha$ -Trifluorotoluene 219484-64-7, HFE 7100

RL: NUU (Other use, unclassified); USES (Uses)

(solvent; production of **antisoiling oil-repellent water-repellent** fluorochem. compns. for treatment of fibrous substrates)

IT 141-43-5, Ethanolamine, reactions 616-30-8, 3-Amino-1,2-propanediol 146185-22-0, Poly(hexafluoropropylene oxide) heptafluoropropyl 1-(methoxycarbonyl)tetrafluoroethyl ether

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (starting materials; production of **antisoiling oil-repellent water-repellent** fluorochem. compns. for treatment of fibrous substrates)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 9 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:951256 HCAPLUS

DOCUMENT NUMBER: 140:6143

TITLE: **Antisoiling oil- and water-resistant** fluorochemical composition for treatment of fibrous substrate

INVENTOR(S): Cote, Linda G.; McAlister, E. Steven

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 77 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

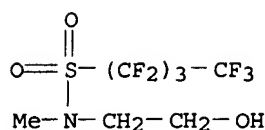
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WO 2003100157	A1	20031204	WO 2003-US15088	

2003  
0513

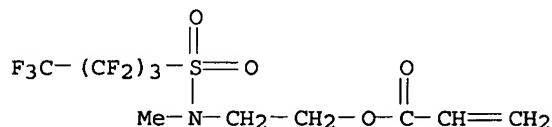
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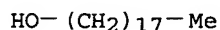
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EP 1507916 A1 20050223 EP 2003-728884 2003  
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EE, HU, SK  
BR 2003011207 A 20050315 BR 2003-11207 2003  
0513  
US 2005171279 A1 20050804 US 2003-513969 2003  
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JP 2005526924 T2 20050908 JP 2004-507593 2003  
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US 2004077238 A1 20040422 US 2003-444713 2003  
0523  
PRIORITY APPLN. INFO.: US 2002-383392P P 2002  
0524  
WO 2003-US15088 W 2003  
0513  
AB Title fluorochem. composition consists of a dispersion or a solution of  
(A) a fluorinated repellent compound and (B) a fluorochem. stain  
release compound (sic). The fluorinated repellent compound contains  
the reaction products of (I) a fluorinated polyether according to  
the formula: Rf-Q-Tk (I) wherein Rf represents a monovalent  
perfluorinated polyether group having a mol. weight of at least 750  
g/mol, Q represents a chemical bond or a divalent or 10 trivalent  
organic linking group, T represents a functional group capable of  
reacting with an isocyanate, and k is 1 or 2, (II) an isocyanate  
component selected from a polyisocyanate compound that has at least  
3 isocyanate groups or a mixture of polyisocyanate compds. wherein  
the average number of isocyanate groups per mol. is more than 2, and  
(III) optionally one or more co-reactants capable of reacting with  
an isocyanate group. Thus, polyester-cotton **fabrics**  
(e.g., carpet) were coating with a composition containing 2-butanone  
oxime-blocked reaction products of Voranate M 220 and  
poly(hexafluoropropylene oxide) heptafluoropropyl  
(1-(2-hydroxyethyl)aminocarbonyl) tetrafluoroethyl ether.  
IT 34454-97-2DP, reaction products with fluorinated polyether  
and isocyanates 67584-55-8DP, reaction products with  
fluorinated polyether and isocyanates  
RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
TEM (Technical or engineered material use); PREP (Preparation);  
USES (Uses)  
(N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide; production of  
**antisoiling** oil- and water-resistant fluorochem. composition  
for treatment of fibrous substrate)  
RN 34454-97-2 HCAPLUS  
CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-  
hydroxyethyl)-N-methyl- (9CI) (CA INDEX NAME)



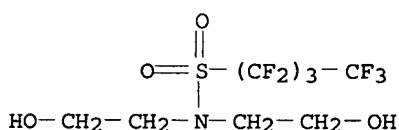
RN 67584-55-8 HCAPLUS  
 CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester (9CI) (CA INDEX NAME)



IT 112-92-5DP, Stearyl alcohol, reaction products with fluorinated polyether and isocyanates 34455-00-0DP, reaction products with fluorinated polyether and isocyanates 53200-31-0DP, Desmodur N 100, reaction products with fluorinated polyether  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)  
 RN 112-92-5 HCAPLUS  
 CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)



RN 34455-00-0 HCAPLUS  
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



RN 53200-31-0 HCAPLUS  
 CN Desmodur N 100 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC ICM D06M015-576  
 ICS C09D175-04; D06M015-53  
 CC 40-9 (Textiles and Fibers)  
 Section cross-reference(s): 42  
 ST **antisoiling** oil water resistant fluorochem compn treatment fibrous substrate  
 IT **Coating materials**  
 (antisoiling; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)  
 IT **Textiles**  
 (cotton-polyester; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous

- substrate)
- IT **Coating materials**  
(oil- and water-resistant; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT Polyurethanes, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyoxyalkylene-, fluorine-containing; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT Fluoropolymers, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyoxyalkylene-polyurethane-; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT Polyoxyalkylenes, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyurethane-, fluorine-containing; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT Carpets  
Oilproofing agents  
Soilproofing agents  
Waterproofing agents  
(production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT 9016-87-9DP, Voranate M 220, reaction products with fluorinated polyether  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(Mondur MR; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT 34454-97-2DP, reaction products with fluorinated polyether and isocyanates 67584-55-8DP, reaction products with fluorinated polyether and isocyanates  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT 77-58-7  
RL: CAT (Catalyst use); USES (Uses)  
(curing catalyst; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT 112-00-5, Arquad 12-50 28724-32-5, Ethoquad 18-25 54116-08-4, Sermul EA 266  
RL: MOA (Modifier or additive use); USES (Uses)  
(emulsifier; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT 96-29-7, 2-Butanone oxime  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(isocyanate-blocking agent; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT 101-68-8DP, Diphenylmethane diisocyanate, reaction products with fluorinated polyether 112-92-5DP, Stearyl alcohol, reaction products with fluorinated polyether and isocyanates 3779-63-3DP, Tris(6-isocyanatohexyl)isocyanurate, reaction

products with fluorinated polyether 9004-74-4DP, MPEG 750, reaction products with fluorinated polyether and isocyanates 25119-62-4DP, Allyl alcohol-styrene copolymer, reaction products with fluorinated polyether and isocyanates 31566-31-1DP, Glycerol monostearate, reaction products with fluorinated polyether and isocyanates 34455-00-0DP, reaction products with fluorinated polyether and isocyanates 53200-31-0DP, Desmodur N 100, reaction products with fluorinated polyether 118550-50-8DP, Tolonate HDT, reaction products with fluorinated polyether 627909-42-6DP, reaction products with isocyanate compds. 627909-43-7DP, reaction products with isocyanate compds.

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

IT 919-30-2, APTES

RL: MOA (Modifier or additive use); USES (Uses)

(production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

IT 822-06-0D, HDI, reaction products with fluorinated polyether

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

IT 98-08-8,  $\alpha,\alpha,\alpha$ -Trifluorotoluene 219484-64-7, HFE 7100

RL: NUU (Other use, unclassified); USES (Uses)

(solvent; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

IT 141-43-5, Ethanolamine, reactions 616-30-8, 3-Amino-1,2-propanediol 146185-22-0D, reaction products with isocyanate compds.

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting materials; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

IT 628301-64-4, Rewopon IM/OA

RL: MOA (Modifier or additive use); USES (Uses)

(surfactant; production of **antisoiling** oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 10 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:150539 HCAPLUS

DOCUMENT NUMBER: 138:172231

TITLE: Alkylated fluorochemical oligomers and use thereof in the treatment of fibrous substrates

INVENTOR(S): Jariwala, Chetan P.; Eggleston, James D.; Yandrasits, Michael A.; Dams, Rudolf J.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: U.S., 17 pp., Cont.-in-part of U.S. 6,288,157. CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 6525127	B1	20030225	US 2000-708372	2000 1108
US 6288157	B1	20010911	US 1999-309836	1999 0511
WO 2002038850	A2	20020516	WO 2001-US46983	2001 1106
WO 2002038850	A3	20030103		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002032513	A5	20020521	AU 2002-32513	2001 1106
EP 1356153	A2	20031029	EP 2001-992037	2001 1106
EP 1356153	B1	20040804		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
AT 272738	E	20040815	AT 2001-992037	2001 1106
ES 2223951	T3	20050301	ES 2001-1992037	2001 1106
US 2004024262	A1	20040205	US 2003-399415	2003 0417
PRIORITY APPLN. INFO.:			US 1999-309836	A2 1999 0511
			US 2000-708372	A 2000 1108
			WO 2001-US46983	W 2001 1106

AB This invention provides a method of treating fibrous substrates, such as leather, by contacting the substrate with a fluorochem. compound comprising: a fluorochem. oligomeric portion comprising an aliphatic backbone with a plurality of pendant fluoroaliph. groups, each fluoroaliph. group having a fully fluorinated terminal group and each independently linked to a carbon atom of the aliphatic backbone through an organic linking group; an aliphatic moiety; and a linking group which links the fluorochem. oligomeric portion to the aliphatic moiety. The fluorochem. compds. provide desirable oil, water and stain repellency to fibrous substrates. C4F9SO2N(CH3)CH2CH2OH acrylate was telomerized with 2-mercaptoethanol, then esterified with stearic acid to give a repellent.

IT 306997-46-6P



RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(alkylated fluorochem. oligomers and use thereof in the treatment of fibrous substrates)

RN 306997-46-6 HCAPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptoethanol (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2

CMF C2 H6 O S

HO-CH<sub>2</sub>-CH<sub>2</sub>-SH

CM 2

CRN 306997-45-5

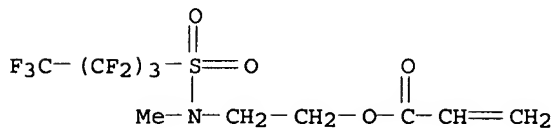
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CCI PMS

CM 3

CRN 67584-55-8

CMF C10 H10 F9 N O4 S



IT 306997-46-6DP, reaction product with EMPOL 1008

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(alkylated fluorochem. oligomers and use thereof in the treatment of fibrous substrates)

RN 306997-46-6 HCAPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptoethanol (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2

CMF C2 H6 O S

HO-CH<sub>2</sub>-CH<sub>2</sub>-SH

CM 2

CRN 306997-45-5

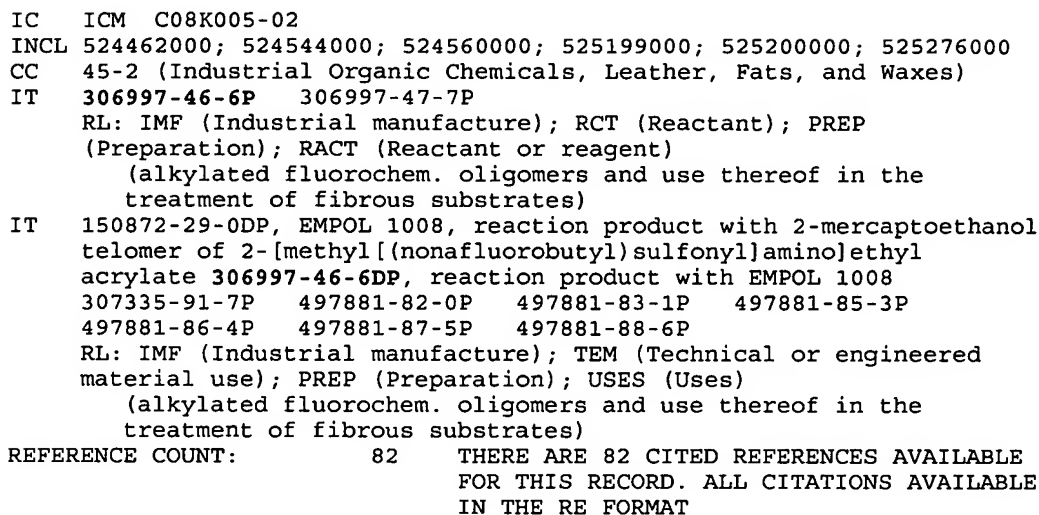
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CCI PMS

CM 3

CRN 67584-55-8

CMF C10 H10 F9 N O4 S



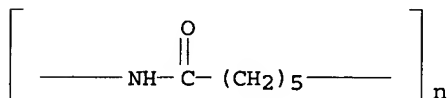
L114 ANSWER 11 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2002:716340 HCAPLUS  
DOCUMENT NUMBER: 137:249186  
TITLE: Water- and oil-repellency  
-imparting urethane oligomers comprising  
perfluoroalkyl moieties  
INVENTOR(S): Qiu, Zai-Ming; Clark, John C.; Fan, Wayne W.;  
Jariwala, Chetan P.; Flynn, Richard M.  
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA  
SOURCE: PCT Int. Appl., 88 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2002072657	A1	20020919	WO 2001-US49669	2001 1226

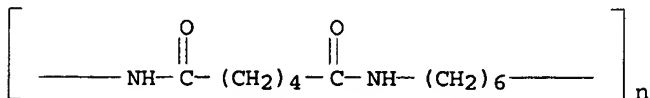
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US 2003026997 A1 20030206 US 2001-803702 2001

US 6803109 B2 20041012 0309  
 CA 2439252 AA 20020919 CA 2001-2439252  
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 EP 1370596 A1 20031217 EP 2001-994352  
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 PRIORITY APPLN. INFO.: US 2001-803702 A  
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 AB Fluorochem. urethane compns. comprising one or more compds. or  
 oligomers having at least on fluorine-containing repeatable unit and  
 at least one fluorine-containing terminal group are described. The  
 compns. are useful as coatings or incorporated as melt additives.  
 The fluorochem. compns. impart oil and **water**  
**repellency** to the substrate. In other aspects, this  
 invention relates to processes for imparting oil and **water**  
**repellency** characteristics to substrates and articles such  
 as limestone tiles, carpets, **fabrics**, and paper. A  
 typical polymer was manufactured by heating EtOAc containing 1.84 g  
 C4F9SO2N(C2H4OH)2, 3.52 g C4F9SO2NMeC2H4OH, 1.66 g HDI, and 2  
 drops dibutyltin dilaurate 4 h at 65°.  
 IT 25038-54-4, Nylon 6, miscellaneous 32131-17-2,  
 Nylon 66, miscellaneous  
 RL: MSC (Miscellaneous)  
 (fibers, substrates; water- and oil-  
**repellency**-imparting urethane oligomers comprising  
 fluorine-containing repeating units and terminal groups for  
 coatings)  
 RN 25038-54-4 HCAPLUS  
 CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



RN 32131-17-2 HCAPLUS  
 CN Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl] (9CI)  
 (CA INDEX NAME)

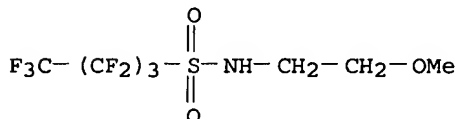


IT 40630-68-0P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (terminating compound precursor; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups moieties for coatings)

RN 40630-68-0 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-methoxyethyl)- (9CI) (CA INDEX NAME)

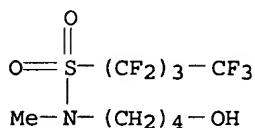


IT 812-94-2P 34454-99-4P 460349-73-9P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (terminating compound; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)

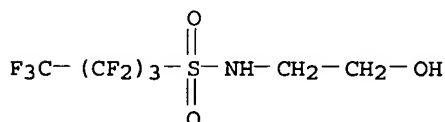
RN 812-94-2 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(4-hydroxybutyl)-N-methyl- (6CI, 8CI, 9CI) (CA INDEX NAME)



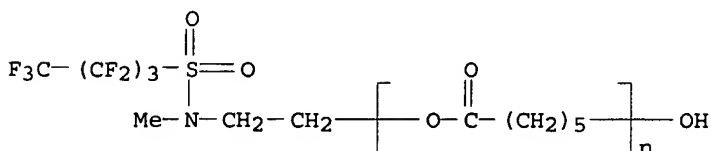
RN 34454-99-4 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



RN 460349-73-9 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)],  $\alpha$ -[2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)



IT 812-94-2DP, N-(4-Hydroxybutyl)-N-

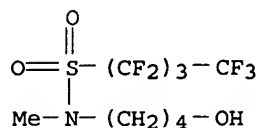
methylperfluorobutanesulfonamide, reaction products with fluoropolyurethanes 24448-09-7DP, N-(2-Hydroxyethyl)-N-methylperfluorooctanesulfonamide, reaction products with fluoropolyurethanes 34454-99-4DP, N-(2-Hydroxyethyl)-1,1,2,2,3,3,4,4,4-nonafluorobutanesulfonamide, reaction products with fluoropolyurethanes 460349-73-9DP, reaction products with fluoropolyurethanes 460349-74-0DP, N,N-Bis(2-hydroxyethyl)nonafluorobutanesulfonamide-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-75-1DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-76-2DP, N,N-Bis(2-hydroxyethyl)perfluorooctanesulfonamide-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorooctanesulfonamide 460349-77-3DP, reaction products with (hydroxyethyl)(methyl)perfluorooctanesulfonamide 460349-78-4DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-1,12-dodecane diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-79-5DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-80-8DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-tetramethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-81-9DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-82-0DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-octamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-83-1DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-84-2DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-ethylene glycol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-85-3DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-1,4-butanediol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-86-4DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-diethylene glycol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-88-6DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-2,2,3,3,4,4-hexafluoro-1,5-pentanediol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-92-2DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-N,N-bis(2-hydroxyethyl)methylamine-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-94-4DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-95-5DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-100 copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-96-6DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-100-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-97-7DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-3300 copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-98-8DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-99-9DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-3400 copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide

**460350-03-2P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)

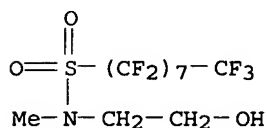
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CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(4-hydroxybutyl)-N-methyl- (6CI, 8CI, 9CI) (CA INDEX NAME)



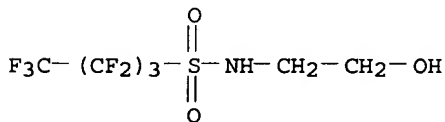
RN 24448-09-7 HCAPLUS

CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-(2-hydroxyethyl)-N-methyl- (8CI, 9CI) (CA INDEX NAME)



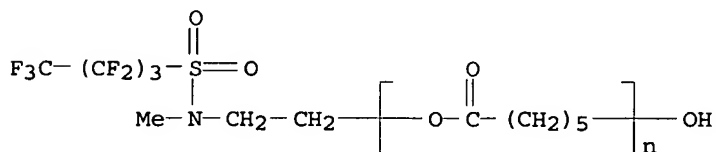
RN 34454-99-4 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



RN 460349-73-9 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)],  $\alpha$ -[2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)



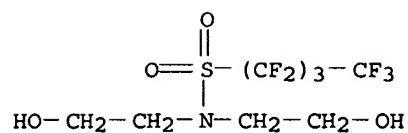
RN 460349-74-0 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 34455-00-0

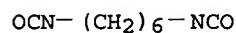
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CM 2

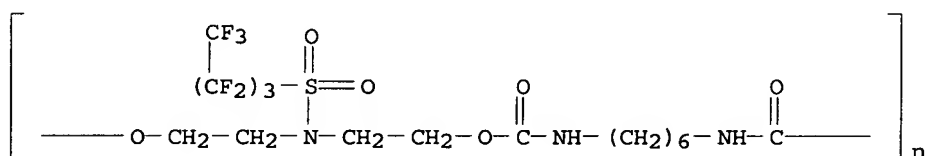
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CMF C8 H12 N2 O2



RN 460349-75-1 HCAPLUS

CN Poly[oxy-1,2-ethanediyl[[ (nonafluorobutyl)sulfonyl]imino]-1,2-ethanediylloxycarbonylimino-1,6-hexanediyliminocarbonyl] (9CI) (CA INDEX NAME)



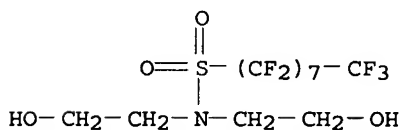
RN 460349-76-2 HCAPLUS

CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

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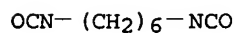
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CM 2

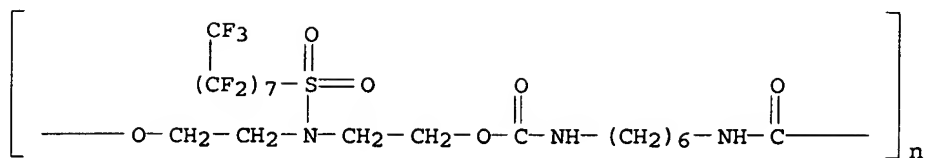
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CMF C8 H12 N2 O2



RN 460349-77-3 HCAPLUS

CN Poly[oxy-1,2-ethanediyl[[ (heptafluorooctyl)sulfonyl]imino]-1,2-ethanediylloxycarbonylimino-1,6-hexanediyliminocarbonyl] (9CI) (CA INDEX NAME)



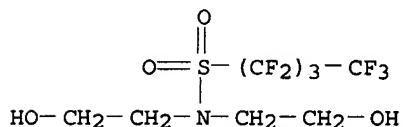
RN 460349-78-4 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,12-diisocyanatododecane (9CI) (CA INDEX NAME)

CM 1

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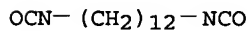
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CM 2

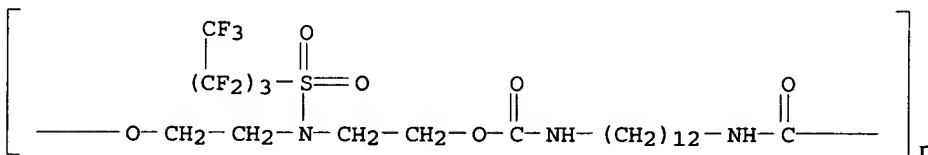
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RN 460349-79-5 HCAPLUS

CN Poly[oxy-1,2-ethanediyl [[(nonafluorobutyl) sulfonyl] imino]-1,2-ethanediyl oxycarbonylimino-1,12-dodecanediyliminocarbonyl] (9CI) (CA INDEX NAME)



RN 460349-80-8 HCAPLUS

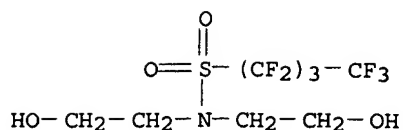
CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,4-diisocyanatobutane (9CI) (CA INDEX NAME)

CM 1

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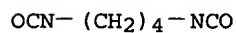




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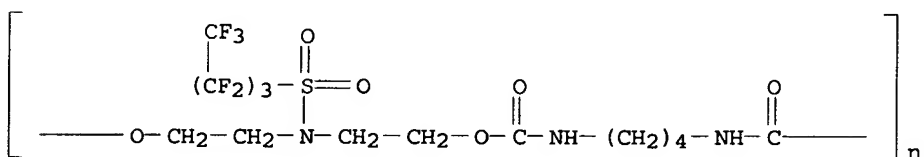
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CMF C6 H8 N2 O2



RN 460349-81-9 HCAPLUS

CN Poly[oxy-1,2-ethanediyl[[ (nonafluorobutyl)sulfonyl]imino]-1,2-ethanediylloxycarbonylimino-1,4-butanediyliminocarbonyl] (9CI) (CA INDEX NAME)



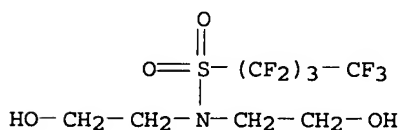
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CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,8-diisocyanatoctane (9CI) (CA INDEX NAME)

CM 1

CRN 34455-00-0

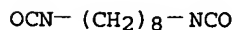
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CM 2

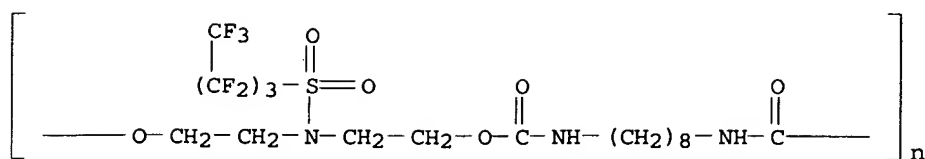
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RN 460349-83-1 HCAPLUS

CN Poly[oxy-1,2-ethanediyl[[ (nonafluorobutyl)sulfonyl]imino]-1,2-ethanediylloxycarbonylimino-1,8-octanediyliminocarbonyl] (9CI) (CA INDEX NAME)



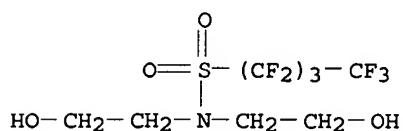
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CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,6-diisocyanatohexane and 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 34455-00-0

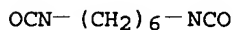
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CM 2

CRN 822-06-0

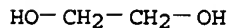
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CM 3

CRN 107-21-1

CMF C2 H6 O2



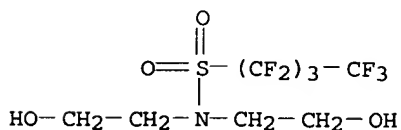
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CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,4-butanediol and 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

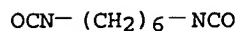
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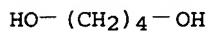
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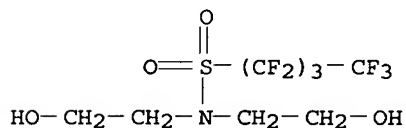
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RN 460349-86-4 HCAPLUS  
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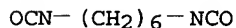
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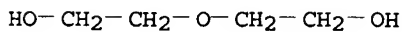
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CM 3

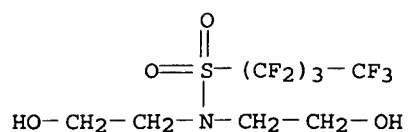
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RN 460349-88-6 HCAPLUS  
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CM 1

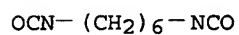
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CM 2

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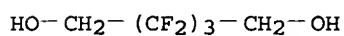
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CM 3

CRN 376-90-9

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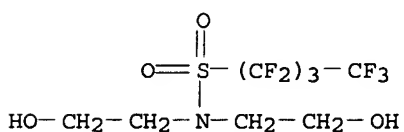
RN 460349-92-2 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,6-diisocyanatohexane and 2,2'-(methylimino)bis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 34455-00-0

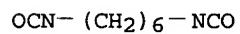
CMF C8 H10 F9 N O4 S



CM 2

CRN 822-06-0

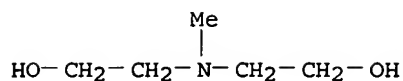
CMF C8 H12 N2 O2



CM 3

CRN 105-59-9

CMF C5 H13 N O2



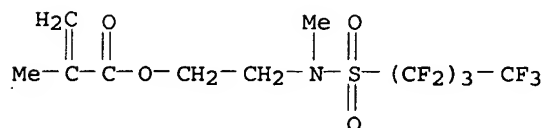
RN 460349-94-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 1,6-diisocyanatohexane and 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 67584-59-2

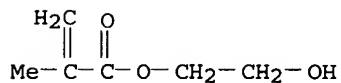
CMF C11 H12 F9 N O4 S



CM 2

CRN 868-77-9

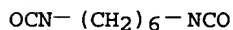
CMF C6 H10 O3



CM 3

CRN 822-06-0

CMF C8 H12 N2 O2



RN 460349-95-5 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with Desmodur N 100 (9CI) (CA INDEX NAME)

CM 1

CRN 53200-31-0

CMF Unspecified

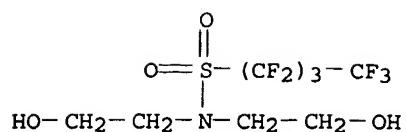
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 34455-00-0

CMF C8 H10 F9 N O4 S



RN 460349-96-6 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with Desmodur N 100 and 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 53200-31-0

CMF Unspecified

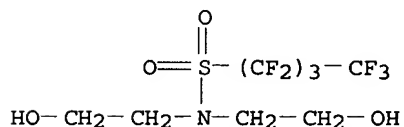
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 34455-00-0

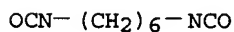
CMF C8 H10 F9 N O4 S



CM 3

CRN 822-06-0

CMF C8 H12 N2 O2



RN 460349-97-7 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with Desmodur N 3300 (9CI) (CA INDEX NAME)

CM 1

CRN 104559-01-5

CMF Unspecified

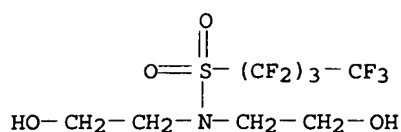
CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 34455-00-0

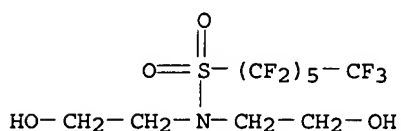
CMF C8 H10 F9 N O4 S



RN 460349-98-8 HCAPLUS  
 CN 1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N,N-bis(2-hydroxyethyl)-, polymer with Desmodur N 3300 (9CI) (CA INDEX NAME)

CM 1

CRN 185689-61-6  
 CMF C10 H10 F13 N O4 S



CM 2

CRN 104559-01-5  
 CMF Unspecified  
 CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 460349-99-9 HCAPLUS  
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with Desmodur N 3400 (9CI) (CA INDEX NAME)

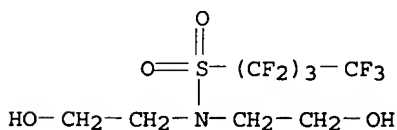
CM 1

CRN 165169-07-3  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 34455-00-0  
 CMF C8 H10 F9 N O4 S



RN 460350-03-2 HCAPLUS  
 CN Glycine, N,N-bis(2-hydroxyethyl)-, polymer with Desmodur N 3300 and 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-1-butanefulfonamide (9CI) (CA INDEX NAME)

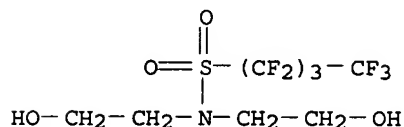
CM 1

CRN 104559-01-5  
 CMF Unspecified  
 CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

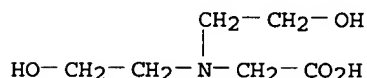
CM 2

CRN 34455-00-0  
 CMF C8 H10 F9 N O4 S



CM 3

CRN 150-25-4  
 CMF C6 H13 N O4



- IC ICM C08G018-38  
 ICS C08G018-28; C08G018-50; D06M013-428; D06M015-576
- CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 40, 43, 57
- ST fluoropolyurethane waterproof oilproof coating limestone tile;  
 paper fluoropolyurethane waterproof oilproof coating; carpet  
 fluoropolyurethane waterproof oilproof finish; fabric  
 fluoropolyurethane waterproof oilproof finish; bishydroxyethyl  
 perfluorobutanesulfonamide HDI copolymer manuf oilproof waterproof  
 coating
- IT Polyamide **fibers**, miscellaneous  
 RL: MSC (Miscellaneous)  
 (6, substrates; water- and oil-**repellency**  
 -imparting urethane oligomers comprising fluorine-containing  
 repeating units and terminal groups for coatings)
- IT Polyamide **fibers**, miscellaneous  
 RL: MSC (Miscellaneous)  
 (66, substrates; water- and oil-**repellency**  
 -imparting urethane oligomers comprising fluorine-containing  
 repeating units and terminal groups for coatings)
- IT Polyurethanes, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered  
 material use); PREP (Preparation); USES (Uses)  
 (acrylic-polyamine-, fluorine-containing; water- and oil-  
**repellency**-imparting urethane oligomers comprising  
 fluorine-containing repeating units and terminal groups for  
 coatings)
- IT Fluoropolymers, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered  
 material use); PREP (Preparation); USES (Uses)  
 (acrylic-polyamine-polyurethane-; water- and oil-  
**repellency**-imparting urethane oligomers comprising  
 fluorine-containing repeating units and terminal groups for  
 coatings)



- IT Polyamines  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic-polyurethane-, fluorine-containing; water- and oil-**repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT **Fabric finishing**  
(agents; water- and oil-**repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for **textile** finishing agents)
- IT Amines, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(coco alkyl, ethoxylated, Ethomeen C-25, fluoropolyurethanes, salts; water- and oil-**repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamide **fibers**, miscellaneous  
RL: MSC (Miscellaneous)  
(**fabrics**, substrates; water- and oil-**repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamides, miscellaneous  
RL: MSC (Miscellaneous)  
(**fibers**, substrates; water- and oil-**repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamides, miscellaneous  
RL: MSC (Miscellaneous)  
(films, substrates; water- and oil-**repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(fluorine-containing; water- and oil-**repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT **Coating materials**  
(oil- and water-resistant; water- and oil-**repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyamine-, fluorine-containing; water- and oil-**repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyamine-polyether-, fluorine-containing; water- and oil-**repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fluoropolymers, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyamine-polyether-polyurethane-; water- and oil-**repellency**-imparting urethane oligomers comprising

- fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyamine-polyisocyanurate-, fluorine-containing; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyamine-polyisocyanurate-polyoxyalkylene-, fluorine-containing; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fluoropolymers, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyamine-polyisocyanurate-polyoxyalkylene-polyurethane-; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyoxyalkylenes, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyamine-polyisocyanurate-polyurethane-, fluorine-containing; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fluoropolymers, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyamine-polyisocyanurate-polyurethane-; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyamine-polyoxyalkylene-, fluorine-containing; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyisocyanurates  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyamine-polyoxyalkylene-polyurethane-, fluorine-containing; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fluoropolymers, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyamine-polyoxyalkylene-polyurethane-; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyethers, uses  
 Polyisocyanurates  
 Polyoxyalkylenes, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyamine-polyurethane-, fluorine-containing; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)

- for coatings)
- IT Fluoropolymers, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyamine-polyurethane-; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyether-, fluorine-containing; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamines  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyether-polyurethane-, fluorine-containing; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fluoropolymers, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyether-polyurethane-; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamines  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyisocyanurate-polyoxyalkylene-polyurethane-, fluorine-containing; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamines  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyisocyanurate-polyurethane-, fluorine-containing; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamines  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyoxyalkylene-polyurethane-, fluorine-containing; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamines  
 Polyethers, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyurethane-, fluorine-containing; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fluoropolymers, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyurethane-; water- and **oil-repellency**-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyesters, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered

- material use); PREP (Preparation); USES (Uses)  
 (reaction products, with fluoropolyurethanes; water- and  
**oil-repellency**-imparting urethane oligomers  
 comprising fluorine-containing repeating units and terminal groups  
 for coatings)
- IT Limestone, miscellaneous  
 RL: MSC (Miscellaneous)  
 (substrate; water- and **oil-repellency**  
 -imparting urethane oligomers comprising fluorine-containing  
 repeating units and terminal groups for coatings)
- IT Carpets  
 Paper  
 Plastic films  
 (substrates; water- and **oil-repellency**  
 -imparting urethane oligomers comprising fluorine-containing  
 repeating units and terminal groups for coatings)
- IT Molded plastics, miscellaneous  
 RL: MSC (Miscellaneous)  
 (substrates; water- and **oil-repellency**  
 -imparting urethane oligomers comprising fluorine-containing  
 repeating units and terminal groups for coatings)
- IT 25038-54-4, Nylon 6, miscellaneous 32131-17-2,  
 Nylon 66, miscellaneous  
 RL: MSC (Miscellaneous)  
 (fibers, substrates; water- and **oil-**  
**repellency**-imparting urethane oligomers comprising  
 fluorine-containing repeating units and terminal groups for  
 coatings)
- IT 24647-14-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (monomer precursor; water- and **oil-repellency**  
 -imparting urethane oligomers comprising fluorine-containing  
 repeating units and terminal groups for coatings)
- IT 43181-25-5P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (monomer; water- and **oil-repellency**  
 -imparting urethane oligomers comprising fluorine-containing  
 repeating units and terminal groups for coatings)
- IT 109-85-3, 2-Methoxyethylamine 660-12-8, 1-Butanesulfonyl  
 fluoride 6962-92-1, 4-Chlorobutyl acetate 16867-25-7,  
 N-Methyl-1-butanefulfonamide  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (terminating compound precursor; water- and **oil-**  
**repellency**-imparting urethane oligomers comprising  
 fluorine-containing repeating units and terminal groups for  
 coatings)
- IT 40630-68-0P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (terminating compound precursor; water- and **oil-**  
**repellency**-imparting urethane oligomers comprising  
 fluorine-containing repeating units and terminal groups moieties  
 for coatings)
- IT 812-94-2P 34454-99-4P 460349-73-9P  
 460987-01-3P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (terminating compound; water- and **oil-**  
**repellency**-imparting urethane oligomers comprising  
 fluorine-containing repeating units and terminal groups for  
 coatings)
- IT 75-89-8DP, 2,2,2-Trifluoroethanol, reaction products with  
 fluoropolyurethanes 96-29-7DP, 2-Butanone oxime, reaction  
 products with fluoropolyurethanes 105-59-9DP,  
 N-Methyldiethanolamine, salts with carboxy group-containing

fluoropolymers 812-94-2DP, N-(4-Hydroxybutyl)-N-methylperfluorobutanesulfonamide, reaction products with fluoropolyurethanes 818-61-1DP, 2-Hydroxyethyl acrylate, reaction products with fluoropolyurethanes 868-77-9DP, 2-Hydroxyethyl methacrylate, reaction products with fluoropolyurethanes 24448-09-7DP, N-(2-Hydroxyethyl)-N-methylperfluorooctanesulfonamide, reaction products with fluoropolyurethanes 34454-99-4DP, N-(2-Hydroxyethyl)-1,1,2,2,3,3,4,4,4-nonafluorobutanesulfonamide, reaction products with fluoropolyurethanes 93894-53-2DP, reaction products with fluoropolyurethanes 460349-73-9DP, reaction products with fluoropolyurethanes 460349-74-0DP, N,N-Bis(2-hydroxyethyl)nonafluorobutanesulfonamide-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-75-1DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-76-2DP, N,N-Bis(2-hydroxyethyl)perfluorooctanesulfonamide-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorooctanesulfonamide 460349-77-3DP, reaction products with (hydroxyethyl)(methyl)perfluorooctanesulfonamide 460349-78-4DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-1,12-dodecane diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-79-5DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-80-8DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-tetramethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-81-9DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-82-0DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-octamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-83-1DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-84-2DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-ethylene glycol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-85-3DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-1,4-butanediol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-86-4DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-diethylene glycol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-87-5DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-ethylene oxide-hexamethylene diisocyanate-propylene oxide block copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-88-6DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-2,2,3,3,4,4-hexafluoro-1,5-pentanediol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-90-0DP, 1,5-Bis(2-hydroxy-1,1-fluoroethoxy)perfluoropentane-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-91-1DP, 1,5-Bis(2-hydroxy-1,1-fluoroethoxy)perfluoropentane-hexamethylene diisocyanate copolymer, sru, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-92-2DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-N,N-bis(2-hydroxyethyl)methylamine-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-93-3DP, N-(2-Hydroxyethyl)-1,1,2,2,3,3,3-heptafluoropropanesulfonamide,

reaction products with fluoropolyurethanes 460349-94-4DP  
 , reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-95-5DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-100 copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-96-6DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-100-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-97-7DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-3300 copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-98-8DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-99-9DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-3400 copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460350-00-9DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-3400-MDI copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460350-01-0DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460350-02-1DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460350-03-2P 460350-05-4P 460987-01-3DP, reaction products with fluoropolyurethanes  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (water- and oil-repellency-impacting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE  
 FOR THIS RECORD. ALL CITATIONS AVAILABLE  
 IN THE RE FORMAT

L114 ANSWER 12 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:709074 HCAPLUS  
 DOCUMENT NUMBER: 137:233752  
 TITLE: Artificial leathers with good fire, mould, and water repellency, and their manufacture  
 INVENTOR(S): Ikeyama, Masami; Iijima, Hiromichi  
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002266253	A2	20020918	JP 2001-64663	2001 0308

PRIORITY APPLN. INFO.: JP 2001-64663  
 2001  
 0308

AB The artificial leathers comprising elastomer-impregnated super fine fibers and/or their fabrics contain (A) phosphazenes P(X1)(X1):NP(X2)(Y2):NP(X3)(Y3):N and/or P(X1)(X1):NP(X2)(Y2):NP(X3)(Y3):NP(X4)(Y4):N (X1-4, Y1-4 = amino, PhO) 1.5-10, (B) benzimidazoles 0.1-5, and (C) polyfluoroalkyl-containing urethanes 0.1-5%. Thus, a PET-polystyrene islands-in-the-sea bicomponent fiber felt was impregnated with polyether-polyester-polyurethane rubbers, treated with dyes and

tetraphenoxydiaminocyclotriphosphazene, washed, further treated with C<sub>9</sub>F<sub>19</sub>CH<sub>2</sub>CH<sub>2</sub>OCONH(CH<sub>2</sub>)<sub>6</sub>NH[CON[(CH<sub>2</sub>)<sub>6</sub>NHCO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>C<sub>9</sub>F<sub>19</sub>]]<sub>2</sub>H and 2-methoxycarbonylamino benzimidazole, and dried to give an artificial leather showing good water and mold resistance even after 5-time washing.

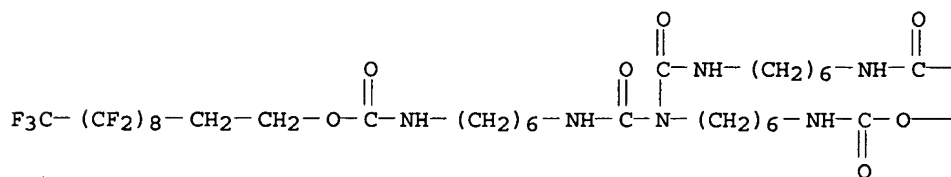
IT 457892-32-9

RL: TEM (Technical or engineered material use); USES (Uses)  
(water repellent agent; artificial leather with good fire, mold, and water repellency)

RN 457892-32-9 HCAPLUS

CN 2,9,11,13,20-Pentaazaheneicosanedioic acid, 11-[6-  
[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-  
nonadecafluoroundecyl)oxy]carbonyl]amino]hexyl]-10,12-dioxo-,  
bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-  
nonadecafluoroundecyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— O—CH<sub>2</sub>—CH<sub>2</sub>—(CF<sub>2</sub>)<sub>8</sub>—CF<sub>3</sub>

—CH<sub>2</sub>—CH<sub>2</sub>—(CF<sub>2</sub>)<sub>8</sub>—CF<sub>3</sub>

IC ICM D06N003-00

ICS C08K005-3447; C08L075-04; C08L085-02; C08L101-00; D04H001-42;  
D06M013-352; D06M015-576; D06M015-673

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 40

IT 457892-32-9

RL: TEM (Technical or engineered material use); USES (Uses)  
(water repellent agent; artificial leather with good fire, mold, and water repellency)

L114 ANSWER 13 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:592215 HCAPLUS

DOCUMENT NUMBER: 137:141784

TITLE: Antisoiling coating compositions and  
fiber products treated with them

INVENTOR(S): Maekawa, Takashige; Shindo, Minako; Seki,  
Takashi; Oharu, Kazuya; Furuta, Shoji

PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002220781	A2	20020809	JP 2001-17403	

2001  
0125

PRIORITY APPLN. INFO.:

JP 2001-17403

2001  
0125

OTHER SOURCE(S): MARPAT 137:141784

AB The compns. contain Rf1XO2CACO2YRf2 (I; Rf1, Rf2 = C<sub>≤</sub>22 perfluoroalkyl; X, Y = divalent organic group; A = C1-8 divalent org group). Thus, a nylon loop pile carpet was coated with an emulsion containing I (A = X = Y = CH<sub>2</sub>, Rf1 = Rf2 = mixture of C<sub>6</sub>F<sub>13</sub>, C<sub>8</sub>F<sub>17</sub>, C<sub>10</sub>F<sub>21</sub>, C<sub>12</sub>F<sub>25</sub>, and C<sub>14</sub>F<sub>29</sub> at molar ratio of 2:50:30:15:3), showing good water and oil repellency and soil resistance.

IT 112-92-5DP, Stearyl alcohol, reaction products with HDI trimer and perfluoroalkyl alcs. 647-42-7DP, reaction products with HDI trimer, perfluoroalkyl alcs., and stearyl alc. 678-39-7DP, reaction products with HDI trimer, perfluoroalkyl alcs., and stearyl alc. 865-86-1DP, reaction products with HDI trimer, perfluoroalkyl alcs., and stearyl alc. 39239-77-5DP, reaction products with HDI trimer, perfluoroalkyl alcs., and stearyl alc. 60699-51-6DP, reaction products with HDI trimer, perfluoroalkyl alcs., and stearyl alc. 444890-32-8P 444890-33-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(antisoiling coating compns. for fiber products)

RN 112-92-5 HCAPLUS

CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)

HO-(CH<sub>2</sub>)<sub>17</sub>-Me

RN 647-42-7 HCAPLUS

CN 1-Octanol, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro- (7CI, 8CI, 9CI) (CA INDEX NAME)

HO-CH<sub>2</sub>-CH<sub>2</sub>-(CF<sub>2</sub>)<sub>5</sub>-CF<sub>3</sub>

RN 678-39-7 HCAPLUS

CN 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (7CI, 8CI, 9CI) (CA INDEX NAME)

HO-CH<sub>2</sub>-CH<sub>2</sub>-(CF<sub>2</sub>)<sub>7</sub>-CF<sub>3</sub>

RN 865-86-1 HCAPLUS

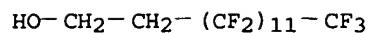
CN 1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro- (7CI, 8CI, 9CI) (CA INDEX NAME)

HO-CH<sub>2</sub>-CH<sub>2</sub>-(CF<sub>2</sub>)<sub>9</sub>-CF<sub>3</sub>

RN 39239-77-5 HCAPLUS

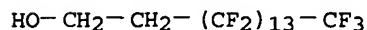
CN 1-Tetradecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuoro- (9CI) (CA INDEX NAME)





RN 60699-51-6 HCAPLUS

CN 1-Hexadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16-nonacosafuoro- (9CI) (CA INDEX NAME)



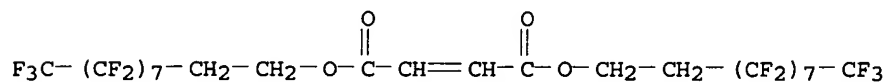
RN 444890-32-8 HCAPLUS

CN 2-Butenedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl) ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 49676-48-4

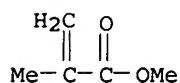
CMF C24 H10 F34 O4



CM 2

CRN 80-62-6

CMF C5 H8 O2



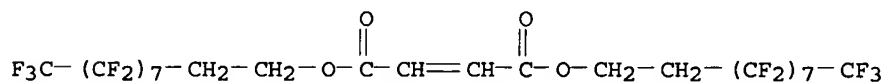
RN 444890-33-9 HCAPLUS

CN 2-Butenedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl) ester, polymer with ethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 49676-48-4

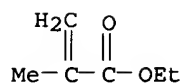
CMF C24 H10 F34 O4



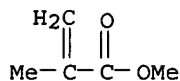
CM 2

CRN 97-63-2

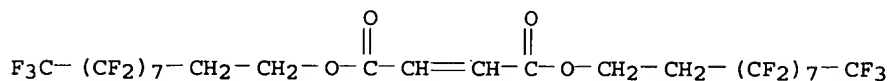
CMF C6 H10 O2



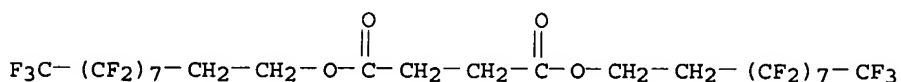
CM 3

CRN 80-62-6  
CMF C5 H8 O2

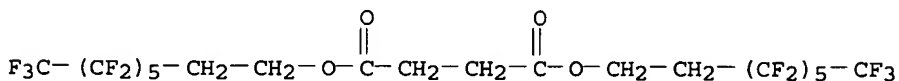
IT 49676-48-4 261928-47-6 444890-28-2  
444890-29-3 444890-30-6 444890-31-7  
RL: TEM (Technical or engineered material use); USES (Uses)  
(antisoiling coating compns. for fiber products)  
RN 49676-48-4 HCAPLUS  
CN 2-Butenedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl) ester (9CI) (CA INDEX NAME)



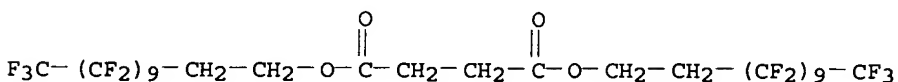
RN 261928-47-6 HCAPLUS  
CN Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl) ester (9CI) (CA INDEX NAME)



RN 444890-28-2 HCAPLUS  
CN Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ester (9CI) (CA INDEX NAME)

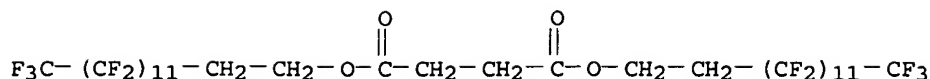


RN 444890-29-3 HCAPLUS  
CN Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl) ester (9CI) (CA INDEX NAME)



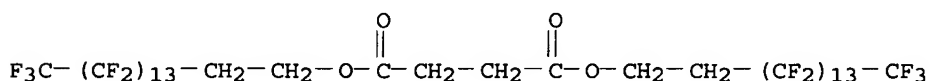
RN 444890-30-6 HCAPLUS  
CN Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl) ester (9CI) (CA INDEX NAME)

NAME)



RN 444890-31-7 HCAPLUS

CN Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafluorohexadecyl) ester (9CI)  
(CA INDEX NAME)



IC ICM D06M013-236

ICS C08K005-00; C08L027-12; C08L033-16; C08L101-00; C09K003-00;  
D06M015-277; D06M015-295; D06M015-576

CC 40-9 (Textiles and Fibers)

Section cross-reference(s): 42

ST perfluoroalkyl butanedioate **antisoiling** coating nylon  
carpet; **water repellency** perfluoroalkyl  
butanedioate **antisoiling** coating fiber;  
**oil repellency** perfluoroalkyl butanedioate  
**antisoiling** coating fiber

IT Fluoropolymers, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered  
material use); PREP (Preparation); USES (Uses)  
(acrylic; **antisoiling** coating compns. for  
fiber products)

IT Coating materials

(**antisoiling**, water-resistant; **antisoiling**  
coating compns. for fiber products)

IT Polyamide fibers, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(carpets; **antisoiling** coating compns. for  
fiber products)

IT Coating materials

(oil-resistant; **antisoiling** coating compns. for  
fiber products)

IT Carpets

(pile; **antisoiling** coating compns. for)

IT 9011-14-7P, Methyl methacrylate homopolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
TEM (Technical or engineered material use); PREP (Preparation);  
USES (Uses)  
(**antisoiling** coating compns. for fiber  
products)

IT 112-92-5DP, Stearyl alcohol, reaction products with HDI

trimer and perfluoroalkyl alcs. **647-42-7DP**, reaction  
products with HDI trimer, perfluoroalkyl alcs., and stearyl alc.  
**678-39-7DP**, reaction products with HDI trimer,  
perfluoroalkyl alcs., and stearyl alc. **865-86-1DP**,  
reaction products with HDI trimer, perfluoroalkyl alcs., and  
stearyl alc. 28574-90-5DP, Hexamethylene diisocyanate trimer,  
reaction products with perfluoroalkyl alcs. and stearyl alc.  
**39239-77-5DP**, reaction products with HDI trimer,  
perfluoroalkyl alcs., and stearyl alc. **60699-51-6DP**,  
reaction products with HDI trimer, perfluoroalkyl alcs., and  
stearyl alc. 110539-63-4DP, Sumidur N 3200, reaction products  
with perfluoroalkyl alcs. and stearyl alc. **444890-32-8P**  
**444890-33-9P**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(antisoiling coating compns. for fiber products)

IT 49676-48-4 261928-47-6 444890-28-2

444890-29-3 444890-30-6 444890-31-7

RL: TEM (Technical or engineered material use); USES (Uses)  
(antisoiling coating compns. for fiber products)

L114 ANSWER 14 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:368721 HCAPLUS

DOCUMENT NUMBER: 136:387741

TITLE: Alkylated fluorochemical oligomers and use thereof in the treatment of fibrous substrates

INVENTOR(S): Jariwala, Chetan P.; Eggleston, James D.;  
Yandrasits, Michael A.; Dams, Rudolf J.;  
Coppens, Dirk M.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2002038850	A2	20020516	WO 2001-US46983	2001 1106
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WO 2002038850	A3	20030103		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EF, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, VZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

US 6525127	B1	20030225	US 2000-708372	2000 1108
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AU 2002032513	A5	20020521	AU 2002-32513	2001 1106
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EP 1356153	A2	20031029	EP 2001-992037	2001 1106
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EP 1356153	B1	20040804		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
AT 272738	E	20040815	AT 2001-992037	2001 1106

US 2004024262	A1	20040205	US 2003-399415	2003 0417
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PRIORITY APPLN. INFO.:	US 2000-708372	A	2000 1108
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US 1999-309836 A2  
1999  
0511

WO 2001-US46983 W  
2001  
1106

AB This invention provides a method of treating fibrous substrates, such as leather, by contacting the substrate with a fluorochem. compound comprising: a fluorochem. oligomeric portion comprising an aliphatic backbone with a plurality of pendant fluoroaliph. groups, each fluoroaliph. group having a fully fluorinated terminal group and each independently linked to a carbon atom of the aliphatic backbone through an organic linking group; an aliphatic moiety; and a linking group which links the fluorochem. oligomeric portion to the aliphatic moiety. The fluorochem. compds. provide desirable oil, water and stain repellency to fibrous substrates.

IT 306997-46-6DP, C40-48-fatty acid esters  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(alkylated fluorochem. oligomers and use thereof in the treatment of fibrous substrates)

RN 306997-46-6 HCAPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptoethanol (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2

CMF C2 H6 O S

HO-CH<sub>2</sub>-CH<sub>2</sub>-SH

CM 2

CRN 306997-45-5

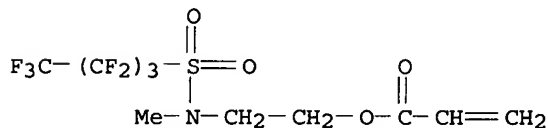
CMF (C10 H10 F9 N O4 S)x

CCI PMS

CM 3

CRN 67584-55-8

CMF C10 H10 F9 N O4 S

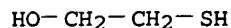


IT 306997-46-6P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(alkylated fluorochem. oligomers and use thereof in the treatment of fibrous substrates)

RN 306997-46-6 HCAPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptoethanol (9CI) (CA INDEX NAME)

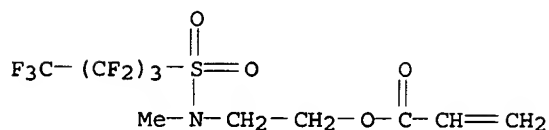
CM 1

CRN 60-24-2  
CMF C2 H6 O S

CM 2

CRN 306997-45-5  
CMF (C10 H10 F9 N O4 S)x  
CCI PMS

CM 3

CRN 67584-55-8  
CMF C10 H10 F9 N O4 S

IC ICM D06M015-277

ICS D06M013-156; D06M013-265

CC 46-4 (Surface Active Agents and Detergents)

Section cross-reference(s): 40

IT 306997-46-6DP, C40-48-fatty acid esters 306997-47-7DP,  
C40-48-fatty acid esters 307497-48-9P 425664-28-4P  
425664-30-8P 425664-32-0P 425664-34-2P 425664-36-4P  
425664-38-6P 425664-40-0P 425664-42-2P 425664-44-4P  
425664-46-6P 425664-48-8P 425664-50-2P 425664-52-4P  
425664-54-6P 425669-05-2P 425669-06-3P 425669-07-4P  
425669-08-5P 425669-09-6P 425669-10-9P 425669-11-0P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical  
or engineered material use); PREP (Preparation); USES (Uses)  
(alkylated fluorochem. oligomers and use thereof in the  
treatment of fibrous substrates)

IT 306997-46-6P 306997-47-7P 307335-82-6P 425664-20-6P  
425664-21-7P 425664-22-8P 425664-25-1P 425664-26-2P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP  
(Preparation); RACT (Reactant or reagent)  
(alkylated fluorochem. oligomers and use thereof in the  
treatment of fibrous substrates)

L114 ANSWER 15 OF 46 HCAPLUS COPYRIGHT 2006 ACS ON STN

ACCESSION NUMBER: 2001:453037 HCAPLUS

DOCUMENT NUMBER: 135:62685

TITLE: Fluoroalkyl triazine compounds and use as  
water repellentINVENTOR(S): Clark, Gregory D.; Behr, Frederick E.;  
Roberts, Gary P.; Vander Louw, Steven J.;  
Hall, Gregory K. E.

PATENT ASSIGNEE(S): 3M Innovative Properties Co., USA

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2001044209	A1	20010621	WO 2000-US30598	2000 1107
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OL, OS, PA, PE, PG, PH, PK, PL, PT, PU, PY, RE, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6391948	B1	20020521	US 1999-461153	1999 1214
PRIORITY APPLN. INFO.:			US 1999-461153	A 1999 1214

## OTHER SOURCE(S): MARPAT 135:62685

AB The invention describes fluorochem. triazine compds., compns. containing the fluorochem. triazine compds., the process for preparing the fluorochem. compds. and compns., substrates treated with the fluorochem. compds., melt extrusion of **fibers** and films containing the fluorochem. compds. and compns., and coating, polish and marine antifouling compns. to provide oil and **water repellency** to substrates.

IT 507-63-1P, Perfluorooctyl iodide 2043-53-0P,  
 2-(Perfluorooctyl)ethyl iodide  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (fluoroalkyl triazine compds. and use as **water repellent**)

RN 507-63-1 HCAPLUS

CN Octane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-8-iodo-  
 (9CI) (CA INDEX NAME)

F<sub>3</sub>C- (CF<sub>2</sub>)<sub>7</sub>-I

RN 2043-53-0 HCAPLUS

CN Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-10-iodo-  
 (8CI, 9CI) (CA INDEX NAME)

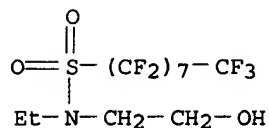
ICH<sub>2</sub>-CH<sub>2</sub>- (CF<sub>2</sub>)<sub>7</sub>-CF<sub>3</sub>

IT 1691-99-2DP, reaction products with triazine derivs.  
 34143-74-3DP, reaction products with triazine derivs.  
 34454-97-2P 104559-01-5DP, DESMODUR N-3300,  
 reaction products with fluoroalkyl compds. and triazine compds.  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (fluoroalkyl triazine compds. and use as **water repellent**)

RN 1691-99-2 HCAPLUS

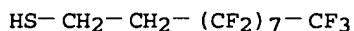
CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-(2-hydroxyethyl)- (6CI, 7CI, 8CI, 9CI) (CA

## INDEX NAME)



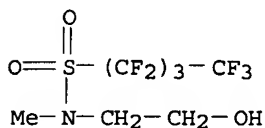
RN 34143-74-3 HCAPLUS

CN 1-Decanethiol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluoro- (8CI, 9CI) (CA INDEX NAME)



RN 34454-97-2 HCAPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)-N-methyl- (9CI) (CA INDEX NAME)



RN 104559-01-5 HCAPLUS

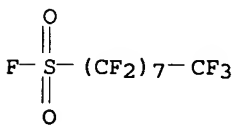
CN Desmodur N 3300 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 307-35-7, Perfluorooctanesulfonyl fluoride  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (fluoroalkyl triazine compds. and use as **water repellent**)

RN 307-35-7 HCAPLUS

CN 1-Octanesulfonyl fluoride, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro- (8CI, 9CI) (CA INDEX NAME)



IC ICM C07D251-34

ICS C09D005-16; C09G001-12; C09D007-12

CC 42-5 (Coatings, Inks, and Related Products)

IT Alcohols, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (C8-12,  $\gamma$ - $\omega$ -perfluoro, reaction products with fluoroalkyl compds. and triazine compds.; fluoroalkyl triazine compds. and use as **water repellent**)

IT Coating materials

(antifouling, marine; fluoroalkyl triazine compds. and use as **water repellent**)

IT Polysiloxanes, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (di-Me, mercaptopropyl group-terminated, reaction products with



- fluoroalkyl compds. and triazine compds.; fluoroalkyl triazine compds. and use as **water repellent**)
- IT Aminoplasts  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(fluoroalkyl triazine compds. and use as **water repellent**)
- IT Perfluoro compounds  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
( $\gamma$ - $\omega$ -perfluoro-C8-12 alcs., reaction products with fluoroalkyl compds. and triazine compds.; fluoroalkyl triazine compds. and use as **water repellent**)
- IT 507-63-1P, Perfluorooctyl iodide 2043-53-0P, 2-(Perfluorooctyl)ethyl iodide  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(fluoroalkyl triazine compds. and use as **water repellent**)
- IT 101-37-1P, 2,4,6-Triallyloxy-1,3,5-triazine 107-96-0P, 3-Mercaptopropionic acid 112-43-6P,  $\omega$ -Undecylenylalcohol 1025-15-6DP, reaction products with fluoroalkyl compds. 1691-99-2DP, reaction products with triazine derivs. 4420-74-0DP, reaction products with triazine derivs. 34143-74-3DP, reaction products with triazine derivs. 34454-97-2P 104559-01-5DP, DESMODUR N-3300, reaction products with fluoroalkyl compds. and triazine compds.  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(fluoroalkyl triazine compds. and use as **water repellent**)
- IT 9003-08-1, RESIMENE 747  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(fluoroalkyl triazine compds. and use as **water repellent**)
- IT 62-56-6, Thiourea, reactions 74-85-1, Ethylene, reactions 307-35-7, Perfluorooctanesulfonyl fluoride  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(fluoroalkyl triazine compds. and use as **water repellent**)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 16 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:848069 HCAPLUS

DOCUMENT NUMBER: 134:30135

TITLE: Water- and oil-repellent

INVENTOR(S): sheets and production methods therefor  
Yoneda, Hisao; Matsui, Mikihiro; Ikebukuro, Kazunari

PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000336348	A2	20001205	JP 1999-149607	1999 0528

PRIORITY APPLN. INFO.:

JP 1999-149607

1999

0528

AB Sheets having fluoropolymers on the surface are prepared and bonded to other articles at <100° and heated at >130° after bonding. Thus, a leather substitute, namely, a polyether polyurethane-coated nylon 6 nonwoven **fabric**, having a surface layer containing Resamine ME 8115LP and poly(1,1-dihydroperfluorooctyl acrylate) was coated with an adhesive at 80°, bonded to a sole treated similarly, and heated at 140° to prepare a sports shoe.

IT 26337-50-8, Poly(1,1-dihydroperfluorooctyl acrylate)  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings; water- and **oil-repellent** sheets  
 for leather substitutes for shoes)

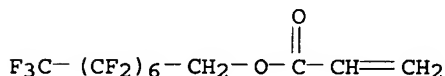
RN 26337-50-8 HCAPLUS

CN 2-Propenoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 307-98-2

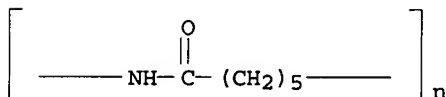
CMF C11 H5 F15 O2



IT 25038-54-4, Nylon 6, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (**fibers**, nonwoven **fabric**; water- and  
**oil-repellent** sheets for leather substitutes  
 for shoes)

RN 25038-54-4 HCAPLUS

CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



IC ICM C09K003-18

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 40

ST water **oil repellent** shoe; polyamide nonwoven  
**fabric** polyurethane leather substitute

IT Polyolefin **fibers**

RL: TEM (Technical or engineered material use); USES (Uses)  
 (ethylene; water- and **oil-repellent** sheets  
 for leather substitutes for shoes)

IT Polyamides, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (**fibers**, nonwoven **fabric**; water- and  
**oil-repellent** sheets for leather substitutes  
 for shoes)

IT Coating materials

(oil-resistant; water- and **oil-repellent**  
 sheets for leather substitutes for shoes)

IT Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (polycarbonate-; water- and **oil-repellent**

sheets for leather substitutes for shoes)  
 IT Polyurethanes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyester-; water- and oil-repellent  
 sheets for leather substitutes for shoes)  
 IT Polyurethanes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyether-; water- and oil-repellent  
 sheets for leather substitutes for shoes)  
 IT Polycarbonates, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyurethane-; water- and oil-repellent  
 sheets for leather substitutes for shoes)  
 IT Adhesion, physical  
 Adhesives  
 Leather substitutes  
 Nonwoven fabrics  
 Shoes  
 Sporting goods  
 (water- and oil-repellent sheets for  
 leather substitutes for shoes)  
 IT Coating materials  
 (water-resistant; water- and oil-repellent  
 sheets for leather substitutes for shoes)  
 IT 26337-50-8, Poly(1,1-dihydroperfluorooctyl acrylate)  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings; water- and oil-repellent sheets  
 for leather substitutes for shoes)  
 IT 25038-54-4, Nylon 6, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (fibers, nonwoven fabric; water- and  
 oil-repellent sheets for leather substitutes  
 for shoes)  
 IT 9002-88-4, Polyethylene  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (fibers; water- and oil-repellent  
 sheets for leather substitutes for shoes)  
 IT 25190-06-1D, Ptmg, polyurethanes 132469-64-8, Resamine ME 8115LP  
 135991-65-0, Resamine ME 8105LP 150604-75-4, Desmodur RE  
 310901-83-8, Notape 3080  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (water- and oil-repellent sheets for  
 leather substitutes for shoes)

L114 ANSWER 17 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:814577 HCAPLUS

DOCUMENT NUMBER: 133:363857

TITLE: Polish composition containing alkylated fluoro  
oligomers

INVENTOR(S): Vander Louw, Steven J.; Jariwala, Chetan P.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2000068333	A1	20001116	WO 1999-US20065	1999 0901

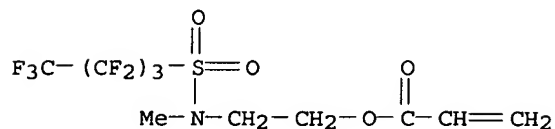
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CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM,

HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,  
 LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,  
 PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA,  
 UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 US 6235824 B1 20010522 US 1999-309461  
 1999  
 0511  
 CA 2372466 AA 20001116 CA 1999-2372466  
 1999  
 0901  
 AU 9958003 A1 20001121 AU 1999-58003  
 1999  
 0901  
 EP 1183315 A1 20020306 EP 1999-945400  
 1999  
 0901  
 EP 1183315 B1 20040414  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
 MC, PT, IE, SI, LT, LV, FI, RO  
 JP 2002544319 T2 20021224 JP 2000-616302  
 1999  
 0901  
 ES 2215401 T3 20041001 ES 1999-945400  
 1999  
 0901  
 PRIORITY APPLN. INFO.: US 1999-309461 A  
 1999  
 0511  
 WO 1999-US20065 W  
 1999  
 0901  
 AB A polish composition for protecting a substrate from environmental  
 damage comprises a base component selected from the group  
 consisting of waxes, silicone oils, and mixts. thereof and an  
 alkylated fluorochem. oligomer comprising: (i) a fluorochem.  
 oligomeric portion comprising an aliphatic backbone with a plurality  
 of fluoroaliph. groups attached thereto, each fluoroaliph. group  
 having a fully fluorinated terminal group and each independently  
 linked to a carbon atom of the aliphatic backbone through an organic  
 linking group; (ii) an aliphatic moiety; and (iii) a linking group  
 which links the fluorochem. oligomeric portion to the aliphatic  
 moiety.  
 IT 306997-46-6DP, esters with fatty acids  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 TEM (Technical or engineered material use); PREP (Preparation);  
 USES (Uses)  
 (polish composition containing alkylated fluoro oligomers)  
 RN 306997-46-6 HCAPLUS  
 CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl  
 ester, telomer with 2-mercaptoethanol (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 60-24-2  
 CMF C2 H6 O S

HO-CH<sub>2</sub>-CH<sub>2</sub>-SH

CRN 306997-45-5  
CMF (C10 H10 F9 N O4 S)x  
CCI PMS

CRN 67584-55-8  
CMF C10 H10 F9 N O4 S



L114 ANSWER 18 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2000:814452 HCAPLUS  
DOCUMENT NUMBER: 133:363131  
TITLE: Alkylated fluorochemical oligomers and use thereof as repellents  
INVENTOR(S): Jariwala, Chetan P.; Klun, Thomas P.; Dams, Rudolf J.; Jones, Marvin E.  
PATENT ASSIGNEE(S): 3M Innovative Properties Co., USA  
SOURCE: PCT Int. Appl., 51 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2000068189	A1	20001116	WO 1999-US20063	

1999  
0901

W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,
	CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM,
	HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
	LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
RW:	PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA,
	UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM,
	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY,
	DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
	BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6288157	B1	20010911	US 1999-309836	1999 0511
AU 9958001	A1	20001121	AU 1999-58001	1999 0901
JP 2002544188	T2	20021224	JP 2000-617170	1999 0901
PRIORITY APPLN. INFO.:			US 1999-309836	A 1999 0511
			WO 1999-US20063	W 1999 0901

AB This invention provides fluorochem. compds. comprising: a fluorochem. oligomeric portion comprising an aliphatic backbone with a plurality of pendant fluoroaliph. groups, each fluoroaliph. group having a fully fluorinated terminal group and each independently linked to a carbon atom of the aliphatic backbone through an organic linking group; an aliphatic moiety; and a linking group which links the fluorochem. oligomeric portion to the aliphatic moiety. The fluorochem. compds. are useful as topical treatments for fibrous substrates such as textiles and fabrics, and as polymer melt additives to provide desirable oil-, water and stain repellency to shaped articles such as fibers.

IT 306997-46-6DP, esters with Unacid 700  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (alkylated fluorochem. oligomers and use thereof as repellents)  
 RN 306997-46-6 HCAPLUS  
 CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptoethanol (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2  
 CMF C2 H6 O S

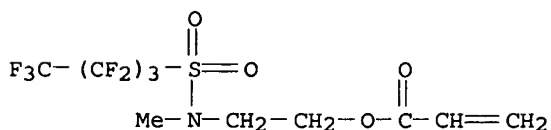
HO-CH<sub>2</sub>-CH<sub>2</sub>-SH

CM 2

CRN 306997-45-5  
 CMF (C10 H10 F9 N O4 S)x  
 CCI PMS

CM 3

CRN 67584-55-8  
 CMF C10 H10 F9 N O4 S



IT 306997-46-6P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP  
(Preparation); RACT (Reactant or reagent)  
(alkylated fluorochem. oligomers and use thereof as repellents)

RN 306997-46-6 HCAPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl  
ester, telomer with 2-mercaptoethanol (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2

CMF C2 H6 O S

HO-CH<sub>2</sub>-CH<sub>2</sub>-SH

CM 2

CRN 306997-45-5

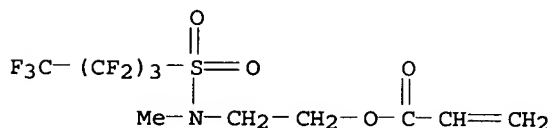
CMF (C10 H10 F9 N O4 S)x

CCI PMS

CM 3

CRN 67584-55-8

CMF C10 H10 F9 N O4 S



IC ICM C07C323-52

ICS C08K005-435; C08K005-375; D06M013-252

CC 35-4 (Chemistry of Synthetic High Polymers)

IT 272128-22-0P 306997-46-6DP, esters with Unacid 700

306997-47-7DP, esters with Unacid 700 307299-86-1P

307299-88-3P 307299-89-4P 307335-80-4DP, esters with Unacid

700 307335-81-5DP, esters with Unacid 700 307335-83-7P

307335-84-8P 307335-86-0P 307335-88-2DP, esters with

perfluoroalkylsulfonamide alcs. 307335-90-6P 307335-91-7P

307497-28-5P 307497-41-2P 307497-44-5P 307497-46-7P

307497-48-9P 307497-50-3P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

PREP (Preparation); USES (Uses)

(alkylated fluorochem. oligomers and use thereof as repellents)

IT 306997-46-6P 306997-47-7P 307299-85-0P 307299-87-2P

307335-79-1P 307335-80-4P 307335-81-5P 307335-82-6P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP

(Preparation); RACT (Reactant or reagent)

(alkylated fluorochem. oligomers and use thereof as repellents)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L114 ANSWER 19 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:628335 HCAPLUS

DOCUMENT NUMBER: 133:224218

TITLE: Surface-treating agents for carpet fibers  
comprising metal alkoxides,  
fluorine-containing compounds having  
functional groups reactable with metal

alkoxides and polymers having functional groups reactable with fibers for improved stain blocking properties and water and oil repellency

INVENTOR(S): Sato, Kazuyuki; Morita, Masamichi; Yamaguchi, Fumihiko; Kubo, Motonobu

PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 31 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000052251	A1	20000908	WO 2000-JP1170	2000 0229
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 2000248464	A2	20000912	JP 1999-57100	1999 0304
EP 1167616	A1	20020102	EP 2000-905407	2000 0229
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			JP 1999-57100	A 1999 0304
			WO 2000-JP1170	W 2000 0229

AB The agents comprise (A) metal alkoxides, (B) F-containing compds. having functional groups reactable with A, and (C) polymers containing reactive groups reactable with the treatment materials, and carpet fibers treated with the agents show stain blocking rating (AATCC TM-175-1993)  $\geq 8$  and Knoop surface hardness (KH)  $\geq 5$ . Thus, 15 parts [3-(methacryloyloxy)propyl]trimethoxysilane was copolymerized with tetraethoxysilane 15, poly(methacrylic acid) (FX-668F) 15, (heptadecafluoro-1,1,2,2-tetrahydrodecyl)triethoxysilane 1.5, and Me methacrylate 5 parts to give a copolymer (I). A nylon pile carpet was spray coated with a solution (solids 3%) containing I 90, benzoin Me ether 0.75, and N,N-methylenebisacrylamide 4 parts and MeOH and exposed to UV rays for 10 min to give a carpet exhibiting water resistance [maximum iso-PrOH content (in volume%) of an aqueous drop containing iso-PrOH for retention of shape of the drop for 3 min] 50, oil repellency rating (AATCC TM-118-1966) 3, stain blocking rating 10, and soiling resistance (AATCC TM-123-1995) 80% and exhibiting Knoop hardness 22.

IT 291536-66-8P, Methacrylic acid-[3-(methacryloyloxy)propyl]trimethoxysilane-methyl methacrylate-tetraethoxysilane copolymer ester with 2-(perfluorooctyl)ethanol, polymer with N,N-methylenebisacrylamide 292139-01-6P, (Heptadecafluoro-1,1,2,2-tetrahydrodecyl)triethoxysilane-methacrylic acid-[3-(methacryloyloxy)propyl]trimethoxysilane-methyl methacrylate-N,N-methylenebisacrylamide-tetraethoxysilane copolymer

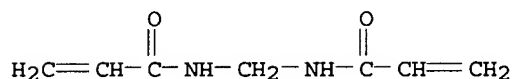


RN 291536-66-8 HCAPLUS

CM 1

CRN 110-26-9

CMF C7 H10 N2 O2



CM 2

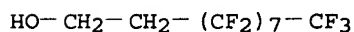
CRN 291536-65-7

$$\text{CMF} \quad (\text{C10 H20 O5 Si} \cdot \text{C8 H20 O4 Si} \cdot \text{C5 H8 O2} \cdot \text{C4 H6 O2})_x \cdot x \text{C10 H5 F17 O}$$

CM 3

CRN 678-39-7

CMF C10 H5 F17 O



CM 4

CRN 291536-64-6

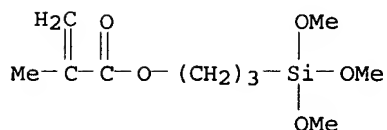
$$\text{CMF} \quad (\text{C}_{10} \text{H}_{20} \text{O}_5 \text{Si} \cdot \text{C}_8 \text{H}_{20} \text{O}_4 \text{Si} \cdot \text{C}_5 \text{H}_8 \text{O}_2 \cdot \text{C}_4 \text{H}_6 \text{O}_2)_x$$

CCI PMS

CM 5

CRN 2530-85-0

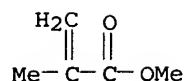
CMF C10 H20 O5 Si



CM 6

CRN 80-62-6

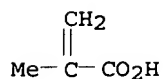
CMF C5 H8 O2



CM 7

CRN 79-41-4

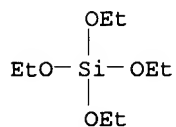
CMF C4 H6 O2



CM 8

CRN 78-10-4

CMF C8 H20 O4 Si



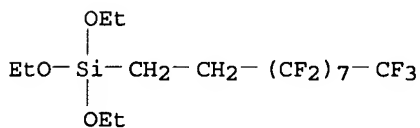
RN 292139-01-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with N,N'-methylenebis[2-propenamide], methyl 2-methyl-2-propenoate, silicic acid (H4SiO4) tetraethyl ester, triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)silane and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 101947-16-4

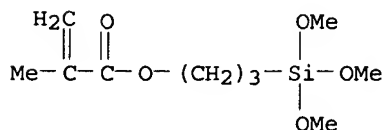
CMF C16 H19 F17 O3 Si



CM 2

CRN 2530-85-0

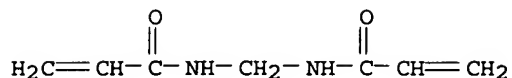
CMF C10 H20 O5 Si



CM 3

CRN 110-26-9

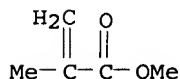
CMF C7 H10 N2 O2



CM 4

CRN 80-62-6

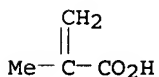
CMF C5 H8 O2



CM 5

CRN 79-41-4

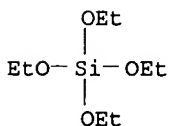
CMF C4 H6 O2



CM 6

CRN 78-10-4

CMF C8 H20 O4 Si



IC ICM D06M013-144

CC 40-9 (Textiles and **Fibers**)

IT **291536-66-8P**, Methacrylic acid-[3-(methacryloyloxy)propyl]trimethoxysilane-methyl methacrylate-tetraethoxysilane copolymer ester with 2-(perfluorooctyl)ethanol, polymer with N,N-methylenebisacrylamide **292139-01-6P**, (Heptadecafluoro-1,1,2,2-tetrahydrodecyl)triethoxysilane-methacrylic acid-[3-(methacryloyloxy)propyl]trimethoxysilane-methyl methacrylate-N,N-methylenebisacrylamide-tetraethoxysilane copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (finishes for carpet fibers comprising metal alkoxides, fluorine-containing compds. having functional groups reactable with

metal alkoxides and polymers having functional groups reactable  
with fibers for improved stain blocking properties)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L114 ANSWER 20 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:300961 HCAPLUS

DOCUMENT NUMBER: 132:341202

TITLE: Oil-based ink-jet printing ink composition for  
statically ink-attracting mode printing and  
method for printing using same

INVENTOR(S): Nakasawa, Yusuke; Kato, Eiichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2000129181	A2	20000509	JP 1998-307290	1998 1028

PRIORITY APPLN. INFO.: JP 1998-307290

1998  
1028

AB In the oil-based ink-jet printing ink composition, which is used for  
statically ink-attracting mode printing, having dispersed 0.1-3  
µm particles in a non-aqueous solution of  $\geq 109 \Omega\text{cm}$   
resistance and of  $\leq 3.5$  dielec. constant, the composition has  
0.05-5 % of a fluoro surfactant which is soluble in the non-aqueous  
solvent. The addition of the fluoro surfactant in the composition  
provides the stable ink-emitting and the excellent image quality.

IT 267401-96-7

RL: TEM (Technical or engineered material use); USES (Uses)  
(7fluoro surfactant in ink-jet printing composition)

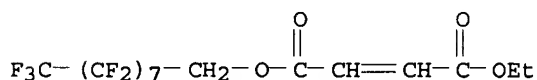
RN 267401-96-7 HCAPLUS

CN 2-Butenedioic acid, ethyl 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-  
heptafluorooctyl ester, polymer with 1-octadecene (9CI) (CA  
INDEX NAME)

CM 1

CRN 267401-95-6

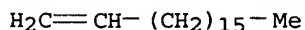
CMF C15 H9 F17 O4



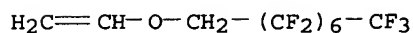
CM 2

CRN 112-88-9

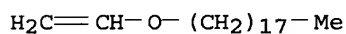
CMF C18 H36



IT 267401-97-8  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fluoro surfactant in ink-jet printing composition)  
RN 267401-97-8 HCAPLUS  
CN Octadecane, 1-(ethenyloxy)-, polymer with 8-(ethenyloxy)-  
1,1,1,2,2,3,3,4,4,5,5,6,6,7,7-pentadecafluorooctane (9CI) (CA  
INDEX NAME)  
  
CM 1  
  
CRN 29414-42-4  
CMF C10 H5 F15 O



CM 2  
  
CRN 930-02-9  
CMF C20 H40 O



IC ICM C09D011-00  
ICS B41M005-00  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)  
Section cross-reference(s): 42  
IT 267401-96-7  
RL: TEM (Technical or engineered material use); USES (Uses)  
(7fluoro surfactant in ink-jet printing composition)  
IT 29403-97-2 88992-72-7, Lauryl methacrylate-  
heptadecafluorooctylethyl methacrylate copolymer 114453-80-4,  
SURFLON SC105 182883-73-4, MEGAFAC F178A 267401-90-1  
267401-91-2 267401-92-3 267401-93-4 267401-94-5  
267401-97-8 267411-43-8  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fluoro surfactant in ink-jet printing composition)

L114 ANSWER 21 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2000:34670 HCAPLUS  
DOCUMENT NUMBER: 132:86022  
TITLE: Optical recording material  
INVENTOR(S): Ono, Toshitsugu; Kondo, Hirofumi; Sakamoto,  
Tetsuhiro  
PATENT ASSIGNEE(S): Sony Corporation, Japan  
SOURCE: Eur. Pat. Appl., 30 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
EP 971344	A1	20000112	EP 1999-113267	1999 0708

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
MC, PT, IE, SI, LT, LV, FI, RO

JP 2000082236 A2 20000321 JP 1998-311473

1998

1030

PRIORITY APPLN. INFO.:

JP 1998-194537

A

1998

0709

JP 1998-311473

A

1998

1030

OTHER SOURCE(S): MARPAT 132:86022

AB An optical recording material comprises, on a substrate, a recording layer, a light-permeable layer, and a surface layer comprising a carboxylic acid amine salt represented by the formula  $(\text{RCO}_2\text{-})_n[\text{HN}+(\text{R}_1)(\text{R}_2)]_n\text{R}_3$  or  $\text{R}_4\text{CO}_2\text{-R}_5\text{N}+\text{R}_6\text{R}_7\text{R}_8$  wherein R is a perfluoroalkyl group having 3 or more carbon atoms; n = an integer of 1-3; each of R1 and R2 is H or a hydrocarbon group; R3 is a hydrocarbon group; at least one of R4 and R6 is a perfluoroalkyl group having 3 or more carbon atoms; and at least one of R4-8 is a hydrocarbon group having 12 or more carbon atoms and the rest of them are H or hydrocarbon groups.

IT 254103-84-9 254103-85-0

RL: TEM (Technical or engineered material use); USES (Uses)  
(optical recording materials with surface layers of)

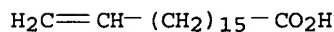
RN 254103-84-9 HCAPLUS

CN 17-Octadecenoic acid, compd. with 12,12,13,13,14,14,15,15,16,16,17,17,18,18,18,18-pentadecafluoro-1-octadecanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 19307-16-5

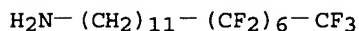
CMF C18 H34 O2



CM 2

CRN 10496-29-4

CMF C18 H24 F15 N



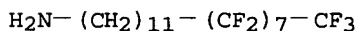
RN 254103-85-0 HCAPLUS

CN 15-Hexadecenoic acid, compd. with 12,12,13,13,14,14,15,15,16,16,17,17,18,18,19,19,19-heptadecafluoro-1-nonadecanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

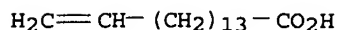
CRN 129749-49-1

CMF C19 H24 F17 N



CM 2

CRN 4675-57-4  
CMF C16 H30 O2

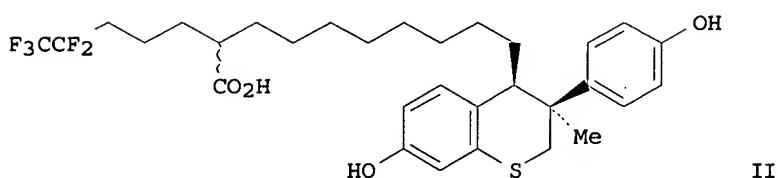
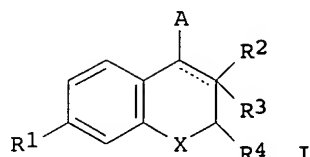


IC ICM G11B007-24  
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
IT 120302-37-6 120302-39-8 120302-44-5 120302-46-7  
120302-47-8 120302-48-9 254103-72-5 254103-73-6  
254103-74-7 254103-75-8 254103-76-9 254103-77-0  
254103-78-1 254103-80-5 254103-82-7 254103-83-8  
254103-84-9 254103-85-0  
RL: TEM (Technical or engineered material use); USES (Uses)  
(optical recording materials with surface layers of)  
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L114 ANSWER 22 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1999:811229 HCAPLUS  
DOCUMENT NUMBER: 132:49886  
TITLE: Preparation of benzopyran and benzothiopyran  
derivatives with antiestrogenic activity  
INVENTOR(S): Jo, Jae Chon; Lim, Hyun Suk; Kim, Jong Min;  
Kim, Ju Su; Morikawa, Kazumi; Kanbe,  
Yoshitake; Kim, Myung Hwa; Nishimoto, Masahiro  
PATENT ASSIGNEE(S): C & C Research Laboratories, S. Korea  
SOURCE: PCT Int. Appl., 457 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9965893	A1	19991223	WO 1999-KR300	1999 0614
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
KR 2000001793	A	20000115	KR 1998-22212	1998 0613
CA 2334634	AA	19991223	CA 1999-2334634	1999 0614
AU 9941719	A1	20000105	AU 1999-41719	1999 0614
AU 756589	B2	20030116		
EP 1087959	A1	20010404	EP 1999-925450	1999 0614
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,				

MC, PT, IE, FI					
JP 2002529372	T2	20020910	JP 2000-554718		1999 0614
NO 2000006293	A	20010213	NO 2000-6293		2000 1211
KR 2001052755	A	20010625	KR 2000-714048		2000 1211
US 6645951	B1	20031111	US 2001-719608		2001 0716
US 2004102479	A1	20040527	US 2003-640696		2003 0812
PRIORITY APPLN. INFO.:			KR 1998-22212	A	1998 0613
			WO 1999-KR300	W	1999 0614
			US 2001-719608	A3	2001 0716
OTHER SOURCE(S):		MARPAT 132:49886		GI	



AB Title compds. (I) [where X = O or S; R1 = H, OH, acyloxy, or alkoxy; R2 = (un)substituted Ph, (un)substituted amino, or a 5- or 6-membered unsatd. heterocycle containing N, O, or S; R3 = null, H, or alkyl; R4 = H or alkyl, A = H, hydroxyalkyl, carboxyalkyl, carboxyvinylphenyl, pyrrole substituted by carboxyvinylbenzyl, etc.] were prepared for use in the treatment breast cancer. Examples include over 70 syntheses and 3 bioassays. For example, II was prepared by a 14-step sequence involving: (1-2) a 2-step synthesis of 8-(t-butyldimethylsilyloxy)-1-octyne, (3) 4-alkynylation of 7-methoxy-3-(4-methoxyphenyl)-3-methylthiochroman-4-one with the octyne (99.3%), (4) reduction of the 4-hydroxy group by NaBH4 in the presence of ZnI2 followed by hydrogenation of the alkyne by Pd/C (50.5%), (5) desilylation (93%), (6) O-mesylation (97.7%), (7) iodation of the mesylate (93.6%), (8-10) 3-step



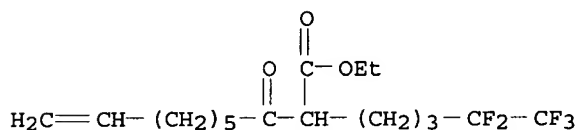
synthesis of di-Et 2-(4,4,5,5,5-pentafluoropentyl)propane-1,3-dioate, (11) addition of the di-Et malonate derivative to the 8-iodooctylthiochroman (95.9%), (12) deesterification, (13) decarboxylation (82.1%), and (14) deprotection of the OH groups (88.7%). The MCF-7 cell growth inhibiting activities of representative invention compds. varied widely [IC<sub>50</sub> = 54.5 nM to 4993 nM compared with IC<sub>50</sub> = 77 nM (trans) and 9.2 nM (cis) for the known antiestrogenic compound ZM 189154]. The antiestrogenic activities of I (oral administration) in ovariectomized mice were comparable or superior to ZM 189154.

IT 252948-84-8P 252948-91-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate; preparation of benzopyran and benzothiopyran derivs. with antiestrogenic activity for the treatment of breast cancer)

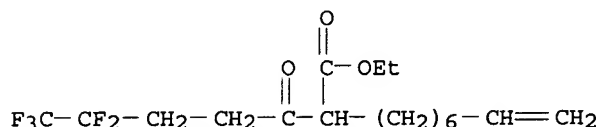
RN 252948-84-8 HCAPLUS

CN 9-Decenoic acid, 3-oxo-2-(4,4,5,5,5-pentafluoropentyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 252948-91-7 HCAPLUS

CN 9-Decenoic acid, 2-(4,4,5,5,5-pentafluoro-1-oxopentyl)-, ethyl ester (9CI) (CA INDEX NAME)



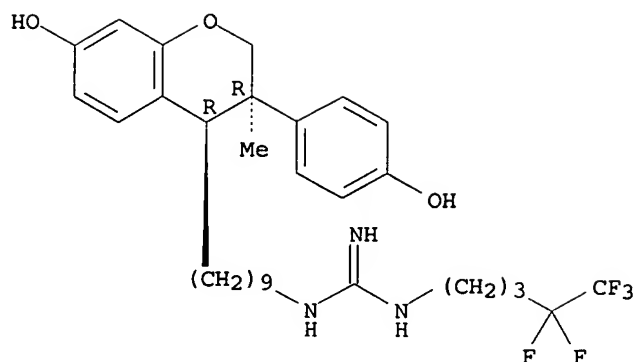
IT 252945-11-2P 252945-19-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (target compound; preparation of benzopyran and benzothiopyran derivs. with antiestrogenic activity for the treatment of breast cancer)

RN 252945-11-2 HCAPLUS

CN Guanidine, N-[9-[(3R,4R)-3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-3-methyl-2H-1-benzopyran-4-yl]nonyl]-N'-(4,4,5,5,5-pentafluoropentyl)-, monohydrochloride, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

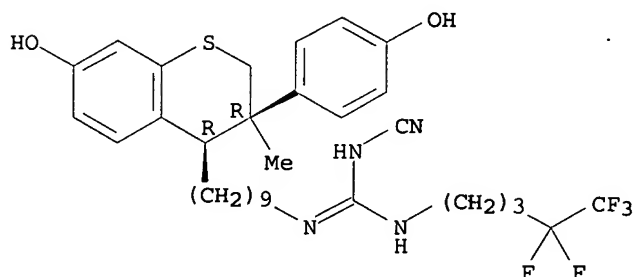


● HCl

RN 252945-19-0 HCAPLUS

CN Guanidine, N-cyano-N'-[9-[(3R,4R)-3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-3-methyl-2H-1-benzothiopyran-4-yl]nonyl]-N''-(4,4,5,5,5-pentafluoropentyl)-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IC ICM C07D311-84

ICS C07D407-04; C07D405-04; C07D409-04; C07D413-04; A61K031-35

CC 27-15 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1

IT	252948-51-9P	252948-52-0P	252948-53-1P	252948-54-2P
	252948-55-3P	252948-56-4P	252948-57-5P	252948-58-6P
	252948-59-7P	252948-60-0P	252948-61-1P	252948-62-2P
	252948-63-3P	252948-64-4P	252948-65-5P	252948-66-6P
	252948-67-7P	252948-68-8P	252948-69-9P	252948-70-2P
	252948-71-3P	252948-72-4P	252948-73-5P	252948-74-6P
	252948-75-7P	252948-76-8P	252948-77-9P	252948-78-0P
	252948-79-1P	252948-80-4P	252948-81-5P	252948-82-6P
	252948-83-7P	<b>252948-84-8P</b>	252948-85-9P	252948-86-0P
	252948-87-1P	252948-88-2P	252948-89-3P	252948-90-6P
	<b>252948-91-7P</b>	252948-92-8P	252948-93-9P	252948-94-0P
	252948-95-1P	252948-96-2P	252948-98-4P	252948-99-5P
	252949-00-1P	252949-01-2P	252949-02-3P	252949-03-4P
	252949-04-5P	252949-05-6P	252949-06-7P	252949-07-8P
	252949-08-9P	252949-09-0P	252949-10-3P	252949-11-4P
	252949-12-5P	252949-13-6P	252949-14-7P	252949-15-8P
	252949-16-9P	252949-17-0P	252949-18-1P	252949-19-2P
	252949-20-5P	252949-21-6P	252949-22-7P	252949-23-8P
	252949-24-9P	252949-25-0P	252949-26-1P	252949-27-2P
	252949-28-3P	252949-29-4P	252949-30-7P	252949-31-8P
	252949-32-9P	252949-35-2P	252949-39-6P	252949-49-8P

252949-51-2P 252949-52-3P 252949-53-4P 252949-54-5P  
252949-55-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP  
(Preparation); RACT (Reactant or reagent)  
(intermediate; preparation of benzopyran and benzothiopyran derivs.  
with antiestrogenic activity for the treatment of breast  
cancer)

IT	209325-21-3P	252944-39-1P	252944-41-5P	252944-42-6P
	252944-44-8P	252944-45-9P	252944-46-0P	252944-47-1P
	252944-48-2P	252944-49-3P	252944-50-6P	252944-51-7P
	252944-52-8P	252944-53-9P	252944-54-0P	252944-55-1P
	252944-56-2P	252944-57-3P	252944-58-4P	252944-59-5P
	252944-60-8P	252944-61-9P	252944-62-0P	252944-63-1P
	252944-64-2P	252944-65-3P	252944-66-4P	252944-67-5P
	252944-68-6P	252944-69-7P	252944-70-0P	252944-71-1P
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	252944-80-2P	252944-81-3P	252944-82-4P	252944-83-5P
	252944-84-6P	252944-85-7P	252944-86-8P	252944-87-9P
	252944-88-0P	252944-89-1P	252944-90-4P	252944-91-5P
	252944-92-6P	252944-93-7P	252944-94-8P	252944-95-9P
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	252945-04-3P	252945-05-4P	252945-06-5P	252945-07-6P
	252945-08-7P	252945-09-8P	252945-10-1P	252945-11-2P
	252945-12-3P	252945-13-4P	252945-15-6P	252945-16-7P
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	252945-21-4P	252945-22-5P	252945-23-6P	252945-24-7P
	252945-25-8P	252945-26-9P	252945-27-0P	252945-28-1P
	252945-29-2P	252945-30-5P	252945-31-6P	252945-32-7P
	252945-33-8P	252945-34-9P	252945-35-0P	252945-36-1P
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	252945-41-8P	252945-42-9P	252945-43-0P	252945-44-1P
	252945-45-2P	252945-46-3P	252945-47-4P	252945-48-5P
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	252945-79-2P	252945-80-5P	252945-81-6P	252945-82-7P
	252945-83-8P	252945-84-9P	252945-85-0P	252945-86-1P
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	252946-03-5P	252946-04-6P	252946-05-7P	252946-06-8P
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	252946-23-9P	252946-24-0P	252946-25-1P	252946-26-2P
	252946-27-3P	252946-28-4P	252946-29-5P	252946-31-9P
	252946-32-0P	252946-33-1P	252946-34-2P	252946-35-3P
	252946-36-4P	252946-37-5P	252946-38-6P	252946-39-7P
	252946-40-0P	252946-41-1P	252946-42-2P	

RL: BAC (Biological activity or effector, except adverse); BSU  
(Biological study, unclassified); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation);  
USES (Uses)

(target compound; preparation of benzopyran and benzothiopyran derivs.  
with antiestrogenic activity for the treatment of breast  
cancer)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE

## IN THE RE FORMAT

L114 ANSWER 23 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1999:439776 HCAPLUS  
 DOCUMENT NUMBER: 131:103485  
 TITLE: Fire-resistant, antifungus, and  
 water-repellent polyester fibers and its  
 production  
 INVENTOR(S): Ikeyama, Seimi; Amano, Jirou  
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

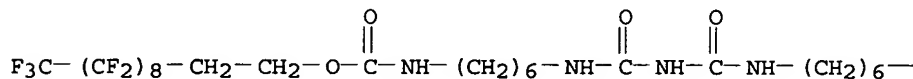
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11189977	A2	19990713	JP 1997-354763	1997 1224
JP 3580110	B2	20041020	JP 1997-354763	1997 1224

PRIORITY APPLN. INFO.: JP 1997-354763

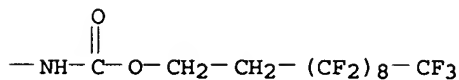
AB The title fibers are prepared by treating polyester fibers [e.g., of PET, poly(butylene terephthalate)] with linear or cyclic amino- and/or phenoxy-containing phosphazene compds. (e.g., 1,1-diamino-3,3,5,5-tetraphenoxy cyclotriphosphazene) to have solid pick up 1.5-10%, then treating with benzimidazole derivs. (e.g., 2-methoxycarbonylamino benzimidazole) and polyfluoroalkyl-containing urethane compds. [e.g., HN[CONH(CH<sub>2</sub>)<sub>6</sub>NHCO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>C<sub>9</sub>F<sub>19</sub>]<sub>2</sub>] to have solids content 0.1-5 and 0.1-5%, resp.

IT 230967-86-9  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (water-repellent agents; fire-resistant polyester fibers with antifungus and water repellent properties and production)  
 RN 230967-86-9 HCAPLUS  
 CN 2,9,11,13,20-Pentaazaeicosanedioic acid, 10,12-dioxo-, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoroundecyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM D06M015-564  
 ICS D06M013-44; D06M013-473  
 CC 40-9 (Textiles and Fibers)

Section cross-reference(s): 5

IT 51-79-6D, Urethane, derivs., perfluoroalkyl group containing  
230967-86-9RL: MOA (Modifier or additive use); TEM (Technical or engineered  
material use); USES (Uses)(water-repellent agents; fire-resistant polyester fibers with  
antifungus and water repellent properties and production)

L114 ANSWER 24 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:96419 HCAPLUS

DOCUMENT NUMBER: 130:169048

TITLE: High temperature-stable fluorochemicals as  
hydrophobic and oleophobic additives for  
synthetic organic polymersINVENTOR(S): Klun, Thomas P.; Gasper, Alton J.; Temperante,  
John A.PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company,  
USA

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9905345	A1	19990204	WO 1997-US22227	1997 1205
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6127485	A	20001003	US 1997-901363	1997 0728
CA 2297145	AA	19990204	CA 1997-2297145	1997 1205
AU 9853727	A1	19990216	AU 1998-53727	1997 1205
EP 1000184	A1	20000517	EP 1997-950832	1997 1205
EP 1000184	B1	20030820		
R: DE, FR, GB, IT, NL, SE				
JP 2001511477	T2	20010814	JP 2000-504310	1997 1205
US 6262180	B1	20010717	US 2000-609191	2000 0630
HK 1028796	A1	20040716	HK 2000-106965	2000 1101
PRIORITY APPLN. INFO.:			US 1997-901363	A 1997 0728

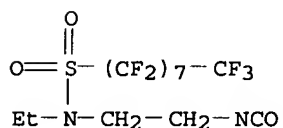
WO 1997-US22227

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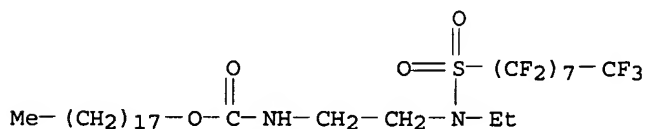
1997

1205

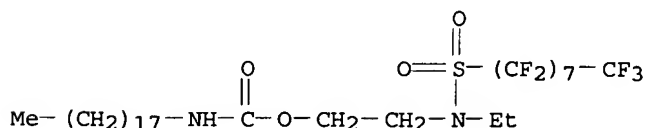
- AB [(Rf)nQOCO]pA, [(Rf)nQCO2]pA', [(Rf)nQNRCO]pA, and [(Rf)nQCONR]A' [Rf = fluoroalkyl, Q = divalent or trivalent linking group where the divalent linking group may be a covalent bond, R = H or (substituted) alkyl, A = mono- or polyfunctional carboxylic acid residue, A' = residue of a mono- or polyfunctional alc. or amine, A or A' contain  $\geq 34$  C atoms with Q = CH<sub>2</sub>CH<sub>2</sub>, n = 1 or 2, p = 1, 2, or many, up to the valency of A or A'] are useful as heat-resistant hydrophobic and oleophobic additives for polymers in the manufacture of films, moldings, and fibers. A typical additive was manufactured by heating Empol 1008 57.8, C<sub>8</sub>F<sub>17</sub>SO<sub>2</sub>NMeCH<sub>2</sub>CH<sub>2</sub>OH 100, p-toluenesulfonic acid 1, and PhMe 50 g 18 h at 150°.
- IT 220254-71-7DP, urethanes with fluoro alcs.  
220254-73-9P 220254-75-1P 220254-77-3P  
220254-79-5P 220254-82-0P  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
TEM (Technical or engineered material use); PREP (Preparation);  
USES (Uses)  
(high temperature-stable fluorochems. as hydrophobic and oleophobic additives for synthetic organic polymers)
- RN 220254-71-7 HCAPLUS
- CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-(2-isocyanatoethyl)- (9CI) (CA INDEX NAME)



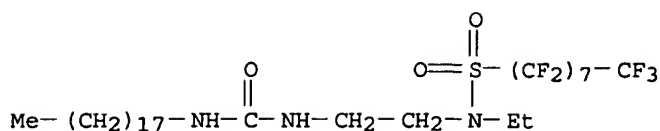
- RN 220254-73-9 HCAPLUS
- CN Carbamic acid, [2-[ethyl[(heptafluorooctyl)sulfonyl]amino]ethyl]-, octadecyl ester (9CI) (CA INDEX NAME)



- RN 220254-75-1 HCAPLUS
- CN Carbamic acid, octadecyl-, 2-[ethyl[(heptafluorooctyl)sulfonyl]amino]ethyl ester (9CI) (CA INDEX NAME)

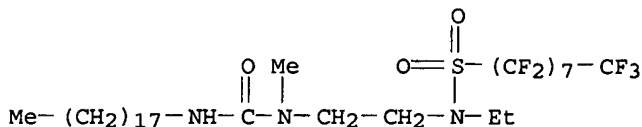


- RN 220254-77-3 HCAPLUS
- CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-[2-[(octadecylamino)carbonyl]amino]ethyl]- (9CI) (CA INDEX NAME)



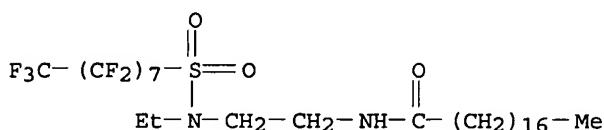
RN 220254-79-5 HCAPLUS

CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-[methyl[(octadecylamino)carbonyl]amino]ethyl]-(9CI) (CA INDEX NAME)



RN 220254-82-0 HCAPLUS

CN Octadecanamide, N-[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]-(9CI) (CA INDEX NAME)



IT 220254-71-7P

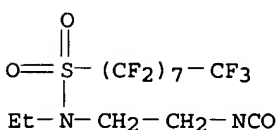
RL: IMF (Industrial manufacture); RCT (Reactant); PREP

(Preparation); RACT (Reactant or reagent)

(precursor; high temperature-stable fluorochems. as hydrophobic and oleophobic additives for synthetic organic polymers)

RN 220254-71-7 HCAPLUS

CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-isocyanatoethyl)-(9CI) (CA INDEX NAME)



IC ICM D01F001-10

ICS C08J005-18; C08K005-10; C08K005-20; D04H001-42; B32B027-18

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 40

IT 110-15-6DP, Butanedioic acid, esters with fluoro alcs., preparation 112-76-5DP, Stearoyl chloride, esters with fluoro alcs. 112-96-9DP, Stearyl isocyanate, oxazolidinones with fluorosulfonamidohydroxychloroethane 124-04-9DP, Adipic acid, esters with fluoro alcs. 143-07-7DP, Dodecanoic acid, esters with fluoro alcs., preparation 822-06-0DP, HDI, oxazolidinones with fluorosulfonamidohydroxychloroethane 2991-50-6DP, esters with dimer fatty diols 2991-51-7DP, esters with dimer fatty diols 13406-91-2DP, amides with dimer acid dichlorides 24448-09-7DP, esters with fatty acid dimers 52907-69-4DP, Empol 1043, esters with fluoro alcs. 75518-90-0DP, oxazolidinones with stearyl isocyanate 97745-64-7P 127290-22-6DP, Pripol 1009, esters with fluoro alcs. 139948-97-3DP, Pripol 1004, esters with

fluoro alcs. 150872-29-ODP, Empol 1008, esters with fluoro alcs.  
 160676-67-5P 160676-71-1P 160676-72-2P 179799-99-6DP, Empol  
 1070, esters with fluoro carboxylic acids 204019-28-3DP, Empol  
 1075, urethanes with fluoro isocyanates 220254-52-4P  
 220254-54-6P 220254-56-8P 220254-59-1DP, esters with dimer  
 fatty diols 220254-61-5P 220254-63-7P 220254-65-9P  
 220254-67-1P 220254-69-3P 220254-71-7DP, urethanes  
 with fluoro alcs. 220254-73-9P 220254-75-1P  
 220254-77-3P 220254-79-5P 220254-82-0P  
 220254-84-2DP, amides with dimer acid dichlorides 220254-86-4P  
 220254-94-4P 220319-04-0P 220319-06-2P 220355-91-9DP,  
 Kemamine DP 3695, reaction products with fluoro epoxides  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 TEM (Technical or engineered material use); PREP (Preparation);  
 USES (Uses)

(high temperature-stable fluorochems. as hydrophobic and oleophobic  
 additives for synthetic organic polymers)

IT 24448-09-7P 220254-59-1P 220254-71-7P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP  
 (Preparation); RACT (Reactant or reagent)

(precursor; high temperature-stable fluorochems. as hydrophobic and  
 oleophobic additives for synthetic organic polymers)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE  
 FOR THIS RECORD. ALL CITATIONS AVAILABLE  
 IN THE RE FORMAT

L114 ANSWER 25 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:784179 HCAPLUS

DOCUMENT NUMBER: 128:96751

TITLE: Lubricating succinic acid derivatives and  
 magnetic recording material using them

INVENTOR(S): Furuya, Takahiro; Miyata, Kazushi

PATENT ASSIGNEE(S): Hitachi Maxell, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09316031	A2	19971209	JP 1996-128466	1996 0523

PRIORITY APPLN. INFO.: JP 1996-128466

1996  
0523

OTHER SOURCE(S): MARPAT 128:96751

AB R2O2CCHR1CH2CO2-N+HR3R4 (I; R1 = H, nonfluorinated block; R2 =  
 fluorinated or nonfluorinated block; R3-4 = H, fluorinated or  
 nonfluorinated block) are claimed as lubricating materials. The  
 magnetic recording material has a magnetic layer on one side or  
 both sides of a nonmagnetic support, and inside or surface of the  
 magnetic layer contains I. I decrease friction between 2 solid  
 surfaces in sliding against each other, thus the recording  
 material using I has good durability and running property. I are  
 also useful for paints, water- and oil-proofing agents for fibers,  
 mold releases, leveling agents, adhesives, antifoaming agents,  
 lenses, etc.

IT 201155-06-8P

RL: DEV (Device component use); PNU (Preparation, unclassified);

TEM (Technical or engineered material use); PREP (Preparation);

USES (Uses)

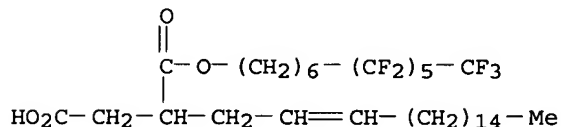


(preparation of succinic acid derivs. as lubricating agents and magnetic recording material using them)

RN 201155-06-8 HCAPLUS  
 CN Butanedioic acid, 2-octadecenyl-, 1-(7,7,8,8,9,9,10,10,11,11,12,12,12-tridecafluorododecyl) ester, compd. with 1-octadecanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 201155-05-7  
 CMF C34 H51 F13 O4



CM 2

CRN 124-30-1  
 CMF C18 H39 N

H<sub>2</sub>N-(CH<sub>2</sub>)<sub>17</sub>-Me

IC ICM C07C069-40  
 ICS C07C069-63; C07C211-03; C07C211-15; C07C217-08; C10M105-36; C10M105-54; C10M105-60; G11B005-71; C10N030-06; C10N040-14; C10N050-08  
 CC 77-8 (Magnetic Phenomena)  
 Section cross-reference(s): 51  
 IT 201154-96-3P 201154-98-5P 201154-99-6P 201155-01-3P  
 201155-02-4P 201155-04-6P 201155-06-8P 201155-08-0P  
 201155-10-4P 201155-12-6P  
 RL: DEV (Device component use); PNU (Preparation, unclassified);  
 TEM (Technical or engineered material use); PREP (Preparation);  
 USES (Uses)  
 (preparation of succinic acid derivs. as lubricating agents and magnetic recording material using them)

L114 ANSWER 26 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:180696 HCAPLUS

DOCUMENT NUMBER: 126:173146

TITLE: Tricarbonyl group-containing fluoropolymers and surface treating agents based on them for metals

INVENTOR(S): Tsuchida, Katsuyuki; Kumagai, Masashi

PATENT ASSIGNEE(S): Japan Enajii Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09003128	A2	19970107	JP 1995-151701	1995 0619

PRIORITY APPLN. INFO.:

JP 1995-151701

1995

0619

AB Title agents giving corrosion resistance, water and oil repellency for metals (especially, Cu, steel, Al), are based on (A) tricarbonyl group-containing fluoropolymers having repeating units  $\text{CH}_2\text{CH}[\text{R}_3\text{OzCOCH}(\text{COOxR}_1)(\text{COOyR}_2)]$  [including their enol forms;  $\text{R}_1$ ,  $\text{R}_2$  = (F-substituted) C1-10 alkyl,  $\text{R}_1$  and/or  $\text{R}_2$  = F-substituted alkyl;  $\text{R}_3$  = single bond, C1-8 alkylene;  $x, y, z = 0, 1$ ], (B) homopolymer of  $\text{R}_2\text{OyCOCH}(\text{COOxR}_1)\text{COOzR}_4$  [I; including their enol forms;  $\text{R}_1$ ,  $\text{R}_2$ ,  $\text{R}_4$  = (F-substituted) C1-10 alkyl, double bond-terminated C2-10 alkenyl, at least one of them is the alkenyl group and at least one of the other is the F-substituted alkyl group;  $x, y, z = 0, 1$ ], or (C) copolymers manufactured from I and vinyl compds. Thus, 6.6 g allyl acetoacetate was treated with 20.0 g perfluorooctanoyl chloride at 50° for 3 h in the presence of Mg and filtered to obtain  $\text{MeCOCH}(\text{COC}_7\text{F}_{15})\text{CO}_2\text{CH}_2\text{CH}:\text{CH}_2$ , 5.0 g of which was polymerized at 150° for 24 h in the presence of di-tert-Bu peroxide, washed with hexane, and dried to obtain a polymer. THF containing 6% the polymer was applied on a Cu foil and dried at 150° for 30 min to give a test piece showing contact angle for  $\text{H}_2\text{O}$  104° and for dodecane 52° and good moisture resistance.

IT 187225-68-9P 187225-69-0P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(tricarbonyl group-containing fluoropolymer anticorrosive coatings with good oil and water repellency for metals)

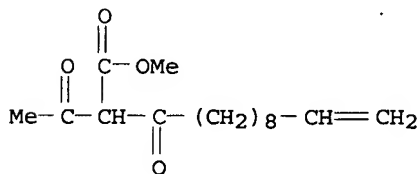
RN 187225-68-9 HCAPLUS

CN 12-Tridecenoic acid, 2-acetyl-3-oxo-, methyl ester, polymer with 2-propenyl 2-acetyl-4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-pentadecafluoro-3-oxodecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 186537-54-2

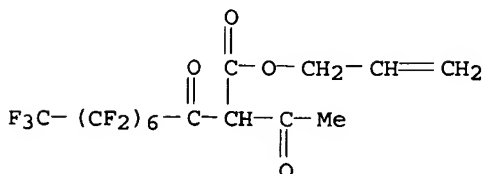
CMF C16 H26 O4



CM 2

CRN 172211-80-2

CMF C15 H9 F15 O4



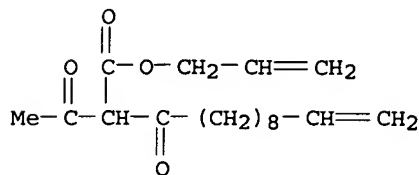
RN 187225-69-0 HCAPLUS

CN 12-Tridecenoic acid, 2-acetyl-3-oxo-, 2-propenyl ester, polymer  
with 2-propenyl 2-acetyl-4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-  
pentadecafluoro-3-oxodecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 186531-56-6

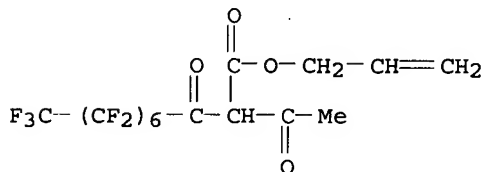
CMF C18 H28 O4



CM 2

CRN 172211-80-2

CMF C15 H9 F15 O4



IC ICM C08F018-20

ICS C08F016-36; C08F018-12; C08F018-14; C09D005-00; C09D005-08

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55, 56

IT 186537-54-2P 187225-68-9P 187225-69-0P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical  
or engineered material use); PREP (Preparation); USES (Uses)  
(tricarbonyl group-containing fluoropolymer anticorrosive coatings  
with good oil and water repellency for metals)

L114 ANSWER 27 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:761356 HCAPLUS

DOCUMENT NUMBER: 126:32989

TITLE: Waterproofing, fireproofing, antifungal, and  
antisoiling polyester fiber products and their  
manufacture

INVENTOR(S): Umeki, Hideo; Shiotani, Takashi

PATENT ASSIGNEE(S): Toray Industries, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08260352	A2	19961008	JP 1995-69952	

1995  
0328

PRIORITY APPLN. INFO.:

JP 1995-69952

1995

0328

AB The title products, e.g. curtains, are manufactured by treatment in a dyeing bath containing 1.0-20% halocycloalkanes at  $\geq 100^\circ$  at bath ratio (1:50)-(1:5), then treatment with solns. containing 0.05-10% benzimidazoles and 0.05-10% polyfluoroalkyl group-containing urethanes. Thus, a polyester plain weave fabric was soaked in a dyeing bath containing 1,2,5,6,9,10-hexabromocyclododecane, then soaked in a solution containing C9F19(CH2)2O2CNH(CH2)6NH[CON(CH2)6NHCO2(C H2)2C9F19]2H and 2-methoxycarbonylaminobenzimidazole to give an antifungal and water- and fire-proofing fabric.

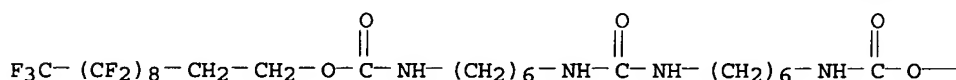
IT 184530-13-0

RL: MOA (Modifier or additive use); USES (Uses)  
(waterproofer; water- and fireproofing, antifungal, and  
antisoiling polyester fabrics containing benzimidazoles,  
polyfluoroalkylurethanes, and halocycloalkanes)

RN 184530-13-0 HCAPLUS

CN 2,9,11,18-Tetraazanonadecanedioic acid, 10-oxo-,  
bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-  
nonadecafluoroundecyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM D06M013-352

ICS D06M013-08; D06M013-428; D06P003-52

ICI D06M101-32

CC 40-9 (Textiles and Fibers)

IT 184530-13-0

RL: MOA (Modifier or additive use); USES (Uses)  
(waterproofer; water- and fireproofing, antifungal, and  
antisoiling polyester fabrics containing benzimidazoles,  
polyfluoroalkylurethanes, and halocycloalkanes)

L114 ANSWER 28 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:855942 HCAPLUS

DOCUMENT NUMBER: 123:257260

TITLE: Preparation of ganglioside GM3 derivative  
having fluorinated ceramide moiety as  
anticancer agent and cancer metastasis  
inhibitor

INVENTOR(S): Iida, Takao; Ohira, Yutaka

PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 85 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9507302          A1      19950316      WO 1994-JP1495
                                           1994
                                           0909
      W: AU, US
      RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL,
           PT, SE
JP 07126278          A2      19950516      JP 1993-331661
                                           1993
                                           1227
AU 9476241           A1      19950327      AU 1994-76241
                                           1994
                                           0909
AU 680047             B2      19970717
EP 672686             A1      19950920      EP 1994-926380
                                           1994
                                           0909
EP 672686             B1      19981216
      R: DE, FR, GB, SE
US 5583208            A      19961210      US 1995-432185
                                           1995
                                           0508
PRIORITY APPLN. INFO.:                JP 1993-225764      A
                                           1993
                                           0910
                                           JP 1993-331661      A
                                           1993
                                           1227
                                           WO 1994-JP1495      W
                                           1994
                                           0909

OTHER SOURCE(S):          CASREACT 123:257260; MARPAT 123:257260
GI

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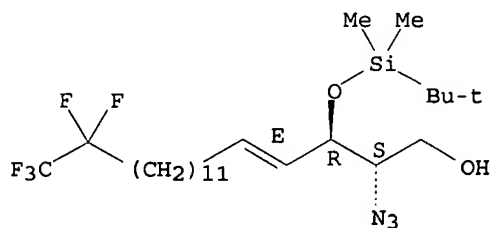
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT  
\*

AB A ganglioside GM3 derivative having a fluorinated ceramide moiety, represented by general formula (I; A1 =  $\beta$ -OQ; R1 = R2 = R12 - R17 = H; R = alkyl or fluoroalkyl; m = an integer of  $\geq 2$ ; n = an integer of 0-7, provided that m is greater than n), which inhibits the proliferation of mouse fibroblast A31 cells (no data), is prepared by glycosidation of lactose derivative [II; R11 - R17 = H, HO-protecting group; R18 = tri(C1-4 alkyl)silylethyl] with sialic acid derivative [III; R1 = HO-protecting group; R2 = HO2C-protecting group; R3 = C1-10 alkyl, (un)substituted Ph] in the presence of N-iodosuccinimide and trifluoromethanesulfonic acid salt to give an intermediate I [A1 =  $\beta$ -2-tri(C1-4 alkyl)silylethoxy; R1 = HO-protecting group; R2 = HO2C-protecting group; R11 - R17 = H, HO-protecting group]. A fluorinated 2-azidosphingosine (IV; m = an integer of  $\geq 2$ ; n = an integer of 0-7; R4, R5 = H, HO-protecting group) and a fluorinated  $\alpha,\beta$ -unsatd. aldehyde trans-OHCCH:CH(CH<sub>2</sub>)<sub>m</sub>-n(CF<sub>2</sub>)<sub>n</sub>CF<sub>3</sub> are also prepared as intermediates. Thus, 728 mg II (R11 = R12 = R13 = R15 = H, R14 = R16 = R17 = Bz, R18 = CH<sub>2</sub>CH<sub>2</sub>SiMe<sub>3</sub>) and 460 mg III (R1 = Ac, R2 = R3 = Me) were dissolved in 6 mL anhydrous MeCN, stirred with 2.4 g powdered mol. sieve 4A for 16 h, and cooled to -45°, followed by successively adding 820 mg N-iodosuccinimide and 140 mg CF<sub>3</sub>SO<sub>3</sub>NBu<sub>4</sub> and stirring the resulting

mixture for 2 h at -45° to -40° to give 48.0% I (A1 =  $\beta$ -OCH<sub>2</sub>CH<sub>2</sub>SiMe<sub>3</sub>, R1 = Ac, R2 = Me, R12 = R13 = R15 = H, R14 = R16 = R17 = Bz). The latter intermediate was converted into a trichloroacetimidate I [A1 =  $\alpha$ -OC(:NH)CCl<sub>3</sub>; R1, R2, R12 - R17 = same as above] which was glycosidated with IV (R4 = Bz, R5 = H, m = 12, n = 0) (preparation given) in the presence of mol. sieve 4A and Et<sub>2</sub>O.BF<sub>3</sub> at 0° for 30 min to give 84.4% I (A1 =  $\beta$ -Q1; R1, R2, R12 - R17 = same as above). The latter compound was reduced by H<sub>2</sub>S in aqueous pyridine, condensed with tetracosanoic acid in the presence of 1-ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride in CH<sub>2</sub>Cl<sub>2</sub>, and successively treated with NaOMe/MeOH and H<sub>2</sub>O to give, after column chromatog. using Amberlite IR120 (H+), a title ganglioside GM3 I (A1 =  $\beta$ -Q; wherein R = C<sub>23</sub>H<sub>47</sub>, m = 12, n = 0; R1 = R2 = R12 - R17 = H).

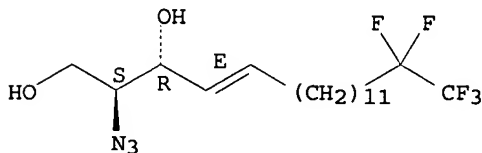
IT 168964-46-3P 168964-47-4P 168964-53-2P  
 168964-56-5P 168964-60-1P 168964-61-2P  
 168964-80-5P, trans-15,15,16,16,16-Pentafluoro-2-hexadecenal  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate for preparation of ganglioside GM3 derivs. having fluorinated ceramide moieties as anticancer agents and cancer metastasis inhibitors)  
 RN 168964-46-3 HCAPLUS  
 CN 4-Octadecen-1-ol, 2-azido-3-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-17,17,18,18,18-pentafluoro-, [R-[R\*,S\*-(E)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.

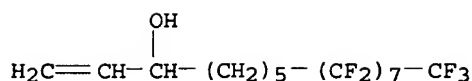


RN 168964-47-4 HCAPLUS  
 CN 4-Octadecene-1,3-diol, 2-azido-17,17,18,18,18-pentafluoro-, [R-[R\*,S\*-(E)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



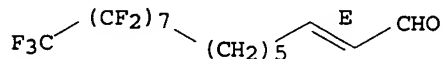
RN 168964-53-2 HCAPLUS  
 CN 1-Hexadecen-3-ol, 9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-heptafluoro- (9CI) (CA INDEX NAME)



RN 168964-56-5 HCAPLUS

CN 2-Hexadecenal, 9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-heptafluoro-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

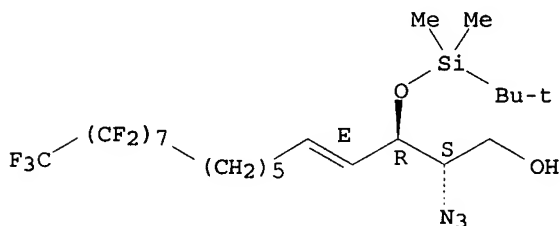


RN 168964-60-1 HCAPLUS

CN 4-Octadecen-1-ol, 2-azido-3-[[[1,1-dimethylethyl]dimethylsilyl]oxy]-11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-heptafluoro-, [R-[R\*,S\*-(E)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

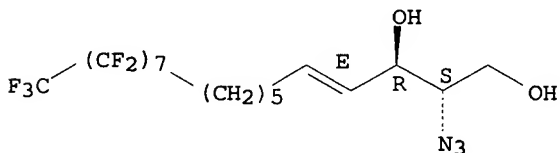


RN 168964-61-2 HCAPLUS

CN 4-Octadecene-1,3-diol, 2-azido-11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-heptafluoro-, [R-[R\*,S\*-(E)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

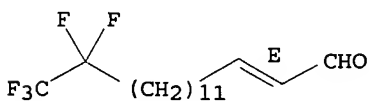
Double bond geometry as shown.



RN 168964-80-5 HCAPLUS

CN 2-Hexadecenal, 15,15,16,16,16-pentafluoro-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM C08B037-00

CC 33-8 (Carbohydrates)

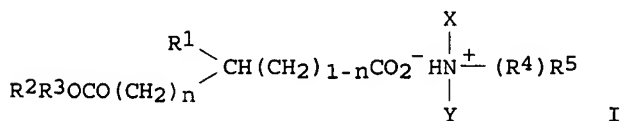
Section cross-reference(s): 1

IT 73782-54-4P, 12,12,13,13,13-Pentafluorotridecanol 121377-31-9P  
 121377-32-0P 124477-22-1P 129794-54-3P, 6-Perfluorooctyl-1-  
 hexanol 168964-28-1P 168964-29-2P 168964-30-5P  
 168964-31-6P 168964-32-7P 168964-33-8P 168964-34-9P  
 168964-35-0P 168964-36-1P 168964-37-2P 168964-38-3P  
 168964-39-4P 168964-40-7P 168964-41-8P 168964-42-9P  
 168964-43-0P 168964-44-1P 168964-45-2P **168964-46-3P**  
**168964-47-4P** 168964-48-5P 168964-49-6P 168964-50-9P  
 168964-51-0P 168964-52-1P **168964-53-2P** 168964-54-3P  
 168964-55-4P **168964-56-5P** 168964-57-6P 168964-58-7P  
 168964-59-8P **168964-60-1P** **168964-61-2P**  
 168964-62-3P 168964-63-4P 168964-64-5P 168964-65-6P  
 168964-66-7P 168964-67-8P 168964-68-9P 168964-69-0P  
 168964-75-8P, 14,14,14-Trifluoro-1-tetradecanol 168964-76-9P,  
 14,14,14-Trifluorotetradecanal 168964-77-0P,  
 6-(Perfluorooctyl)hexanal 168964-79-2P, 13-Bromo-1,1,2,2-  
 pentafluorotridecane **168964-80-5P**, trans-15,15,16,16,16-  
 Pentafluoro-2-hexadecenal 169106-07-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (intermediate for preparation of ganglioside GM3 derivs. having  
 fluorinated ceramide moieties as anticancer agents and cancer  
 metastasis inhibitors)

L114 ANSWER 29 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1995:735395 HCAPLUS  
 DOCUMENT NUMBER: 123:274145  
 TITLE: Fluorine-containing carboxylic acid amine salt  
 and a magnetic recording medium using it as a  
 lubricant  
 INVENTOR(S): Kai, Yoshiaki; Ohchi, Yukikazu  
 PATENT ASSIGNEE(S): Matsushita Electric Industrial Co., Ltd.,  
 Japan  
 SOURCE: Eur. Pat. Appl., 16 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 652206	A2	19950510	EP 1994-116405	1994 1018
EP 652206	A3	19951220		
EP 652206	B1	19990714		
R: DE, FR, GB, NL				
JP 07173105	A2	19950711	JP 1994-251874	1994 1018
PRIORITY APPLN. INFO.:			JP 1993-260757	A 1993 1019

OTHER SOURCE(S): MARPAT 123:274145  
 GI





AB The carboxylic acid amine salt has the formula I, where R1 = C6-30 alkyl or alkenyl; R2 = C3-30 fluoroalkyl or fluoroalkenyl, C6-18 fluorophenyl, or C5-50 fluoroalkyl ether; R3,R4 = C1-20 saturated or unsatd. hydrocarbon; R5 = C3-30 fluoroalkyl or fluoroalkenyl; n = 0 or 1; X = H or -(R6)R7; Y = H or -(R8)R9; R6,R8 = C1-20 saturated or unsatd. hydrocarbon; and R7,R9 = C3-30 fluoroalkyl or fluoroalkenyl. A magnetic recording medium comprises a base film, a ferromagnetic film, and a lubricant layer either directly on the ferromagnetic film or on a protective film; the lubricant layer contains  $\geq 1$  F-containing carboxylic acid amine salt (I).

IT 166306-98-5

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(as lubricant for magnetic recording medium)

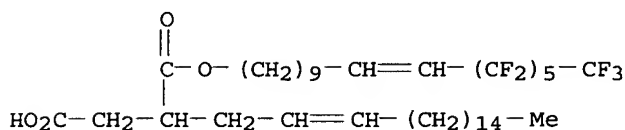
RN 166306-98-5 HCAPLUS

CN Butanedioic acid, 2-octadecenyl-, 1-(12,12,13,13,14,14,15,15,16,16,17,17,17-tridecafluoro-10-heptadecenyl) ester, compd. with 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-1-undecanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 166306-97-4

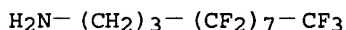
CMF C39 H59 F13 O4



CM 2

CRN 139175-50-1

CMF C11 H8 F17 N



IC ICM C07C211-15

ICS C07C211-24; C07C069-63; C07C069-65; G11B005-71; C10M105-60

ICI C10N040-18

CC 77-8 (Magnetic Phenomena)

IT 166306-98-5 169397-35-7

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(as lubricant for magnetic recording medium)

L114 ANSWER 30 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:32815 HCAPLUS

DOCUMENT NUMBER: 120:32815

TITLE: Washfast durable water and oil repellents

INVENTOR(S): Maekawa, Takashige; Yoshioka, Ryoko; Kamata, Takashi; Ishida, Mika; Kumai, Seisaku

PATENT ASSIGNEE(S): Asahi Glass Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05171136	A2	19930709	JP 1992-84589	1992 0306

PRIORITY APPLN. INFO.:

JP 1991-73995	A1	1991 0313
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AB The title agents are based on polymers of fluoroalkyl group-containing monomers forming homopolymers showing the polyfluoroalkyl group-based crystallite m.p.  $\geq 100^\circ$ .

CF<sub>3</sub>(CF<sub>2</sub>)<sub>9</sub>CH<sub>2</sub>CH<sub>2</sub>O<sub>2</sub>CCH:CH<sub>2</sub> was polymerized in the presence of AIBN in 1,1,2-trichlorotrifluoroethane, and the resulting polymer (as 1% solution) was used for finishing polyester fabric.

IT 152049-77-9P 152070-15-0P

RL: PREP (Preparation)

(manufacture of, for oil- and waterproofing textile finishes, washfast)

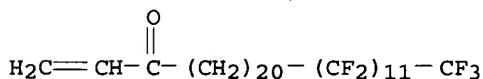
RN 152049-77-9 HCAPLUS

CN 2-Propenoic acid, 21,21,22,22,23,23,24,24,25,25,26,26,27,27,28,28,29,29,30,30,30-heneicosafuorotriacontyl ester, polymer with 24,24,25,25,26,26,27,27,28,28,29,29,30,30,31,31,32,32,33,33,34,34,35,35,35-pentacosafuoro-1-pentatriaconten-3-one (9CI) (CA INDEX NAME)

CM 1

CRN 152049-76-8

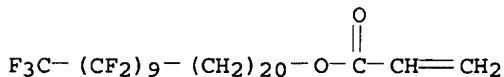
CMF C35 H43 F25 O



CM 2

CRN 152049-66-6

CMF C33 H43 F21 O2



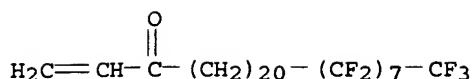
RN 152070-15-0 HCAPLUS

CN 2-Propenoic acid, 21,21,22,22,23,23,24,24,25,25,26,26,27,27,28,28,29,29,30,30,30-heneicosafuorotriacontyl ester, polymer with 24,24,25,25,26,26,27,27,28,28,29,29,30,30,31,31,31-heptadecafluoro-1-hentriaconten-3-one (9CI) (CA INDEX NAME)

CM 1

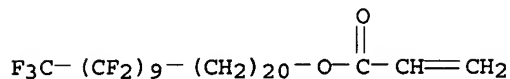
CRN 152049-72-4

CMF C31 H43 F17 O



CM 2

CRN 152049-66-6  
CMF C33 H43 F21 O2

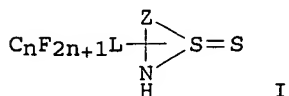


IC ICM C09K003-18  
ICS C08F016-24; C08F020-22; D06M015-277  
ICA C09D005-00; C09D129-10  
CC 40-9 (Textiles and Fibers)  
IT 152049-67-7P 152049-69-9P 152049-71-3P 152049-73-5P  
152049-75-7P **152049-77-9P** 152049-78-0P 152049-80-4P  
152049-81-5P 152049-82-6P 152049-84-8P 152070-12-7P  
152070-14-9P **152070-15-0P**  
RL: PREP (Preparation)  
(manufacture of, for oil- and waterproofing textile finishes,  
washfast)

L114 ANSWER 31 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1993:673523 HCAPLUS  
DOCUMENT NUMBER: 119:273523  
TITLE: Oil- and water-repellent method for heavy  
metal surfaces with perfluoroalkyl thiones  
INVENTOR(S): Futaki, Kyoshi; Iguchi, Shigeru; Takada,  
Masakazu  
PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05023645	A2	19930202	JP 1991-207521	1991 0723
PRIORITY APPLN. INFO.:			JP 1991-207521	1991 0723

OTHER SOURCE(S): MARPAT 119:273523  
GI

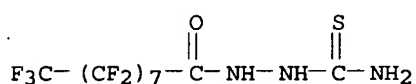


AB The title thiones or their corresponding thiols are I or  $C_nH_{2n+1}LNHNHC:SNHR$  (L = hydrocarbylene; R = H, low alkyl, low alkenyl, aryl; Z = thiadiazoline, triazoline tetrazoline, dihydrotriazine, tetrahydrotriazine ring residues; n = 6-9). Thus, a Ag plated substrate was treated with a MeOH solution of  $C_8F_{17}CONHNHCSNH_2$  (prepared from thiosemicarbamide and perfluorononanoyl chloride) to give a surface with linseed oil contact angle  $77.9^\circ$  and water contact angle  $123.7^\circ$ .

IT **150502-54-8P**  
 RL: PREP (Preparation)  
 (manufacture of, as oil- and water-repellent agents, for heavy metals)

RN 150502-54-8 HCAPLUS

CN Nonanoic acid, heptadecafluoro-, 2-(aminothioxomethyl)hydrazide (9CI) (CA INDEX NAME)



IC ICM B05D007-24  
 ICS B05D005-08; B05D007-14; C09K003-18

CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 55, 56

IT 150502-50-4P 150502-51-5P 150502-52-6P 150502-53-7P  
**150502-54-8P** 150523-74-3P  
 RL: PREP (Preparation)  
 (manufacture of, as oil- and water-repellent agents, for heavy metals)

L114 ANSWER 32 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:153950 HCAPLUS

DOCUMENT NUMBER: 116:153950

TITLE: Urethanes from aliphatic fluoroalcohols, isocyanates and carboxylic acids as finishes for textiles

INVENTOR(S): Knaup, Wolfgang; Kupfer, Rainer; Kleber, Rolf; Jaeckel, Lothar; Gohlke, Fritz Joachim

PATENT ASSIGNEE(S): Hoechst A.-G., Germany

SOURCE: Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
EP 435220	A2	19910703	EP 1990-125271	1990 1221
EP 435220	A3	19911121		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
DE 3943127	A1	19910704	DE 1989-3943127	1989 1228
US 5171877	A	19921215	US 1990-633806	1990 1226
CA 2033313	AA	19910629	CA 1990-2033313	1990 1227
JP 03294258	A2	19911225	JP 1990-409119	

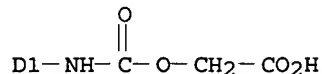
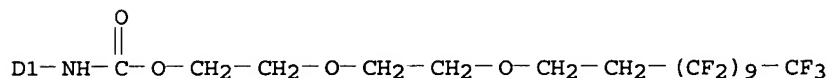
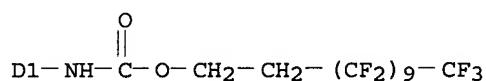
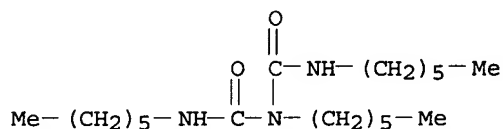
PRIORITY APPLN. INFO.: DE 1989-3943127 A 1990  
1228  
1989  
1228

AB The urethanes  $R[ZCONHZ1[NHCO[OCH(CH_2Cl)CH_2]yO(CH_2)xRf]NHCO[OCH(CH_2Cl)CH_2]mO(CH_2)nRf1]s$  [R = residue of a carboxylic acid (functionality 1-5) or salt; Rf, Rf1 = C4-22 perfluoroalkyl; Z = direct bond, O, imino; Z1 = trivalent (cyclo)aliphatic or aromatic group; m, x = 1-4; n, y = 0-7, s = 1-3] are useful as water-, oil-, and soilproofing finishes for textiles. The reaction of 1 mol diurethane from HMDI biuret triisocyanate,  $C_{10}F_{21}CH_2CH_2OH$ , and  $C_{10}F_{21}CH_2CH_2O[CH_2CH(CH_2Cl)O]_2H$  with 1 mol citric acid gave a triurethane (I). Polyamide fabrics finished with I (0.05% F based on fibers) and condensed at 200° for 30 s had oilproofing rating (AATCC standard 118) 6, waterproofing rating (DIN 53 888, 1965) 5, and soilproofing rating (5 best, 1 worst) 3; vs. 5, 5, and 4, resp., after 3 h of alkaline washing.

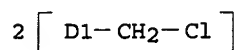
IT 137112-83-5P 137112-84-6P 137133-95-0P  
137133-97-2P 137151-33-8P 137172-80-6P  
RL: PREP (Preparation)  
(manufacture of, as waterproofing and soilproofing finishes for fabrics)

RN 137112-83-5 HCAPLUS  
CN 20-Oxa-2,9,11,18-tetraazadocosanedioic acid, 9-(or 11)-[6-(carboxyamino)hexyl]-10,19-dioxo-, mono[(chloromethyl)[(chloromethyl)-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl)oxy]ethoxy]ethyl] mono(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



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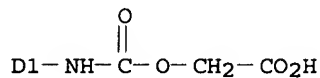
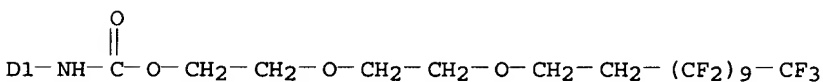
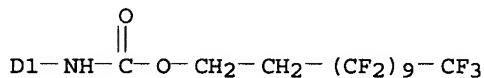
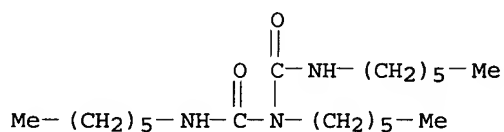


RN 137112-84-6 HCAPLUS  
 CN 20-Oxa-2,9,11,18-tetraazadocosanedioic acid, 9(or  
 11)-[6-(carboxyamino)hexyl]-10,19-dioxo-,  
 mono[(chloromethyl)[(chloromethyl)-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,  
 9,10,11,11,12,12,12-heneicosafuorododecyl)oxy]ethoxy]ethyl]  
 mono(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-  
 heneicosafuorododecyl) ester, compd. with 2-aminoethanol (1:1)  
 (9CI) (CA INDEX NAME)

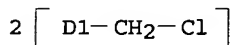
CM 1

CRN 137112-83-5  
 CMF C55 H62 Cl2 F42 N6 O12  
 CCI IDS

PAGE 1-A

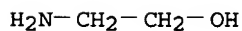


PAGE 2-A



CM 2

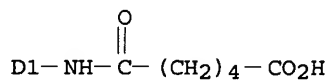
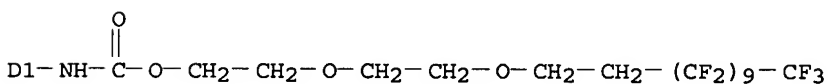
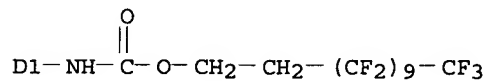
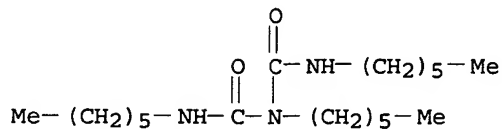
CRN 141-43-5  
 CMF C2 H7 N O



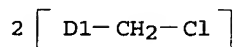
RN 137133-95-0 HCAPLUS  
 CN 2,9,11,18-Tetraazatetracosanedioic acid, 9(or 11)-[[[6-(  
 (carboxyamino)hexyl]amino]carbonyl]-, mono[(chloromethyl)-2-  
 [(chloromethyl)-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,  
 12-heneicosafuorododecyl)oxy]ethoxy]ethyl]

mono(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl) ester (9CI) (CA INDEX NAME)

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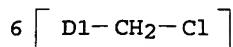
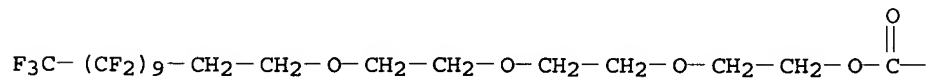


PAGE 2-A

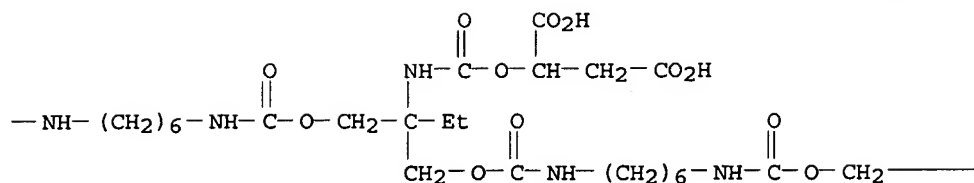


RN 137133-97-2 HCAPLUS  
 CN 11,15-Dioxa-2,9,17,24-tetraazapentacosanedioic acid,  
 13-[[[(1,2-dicarboxyethoxy)carbonyl]amino]-13-ethyl-,  
 1,25-bis[(chloromethyl)-2-[(chloromethyl)-2-[(chloromethyl)-2-  
 [(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-  
 heneicosafuoroundecyl)oxy]ethoxy]ethoxy]ethyl] ester (9CI) (CA  
 INDEX NAME)

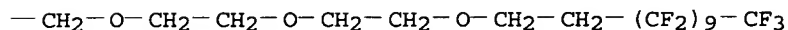
PAGE 1-A



PAGE 1-B

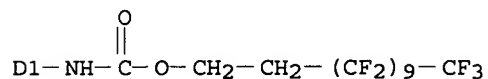
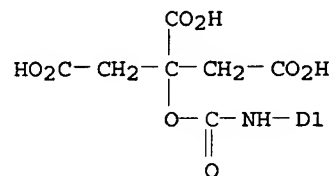
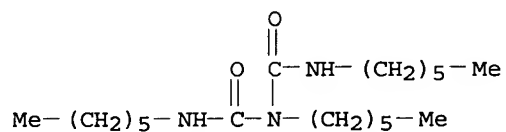


PAGE 1-C



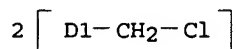
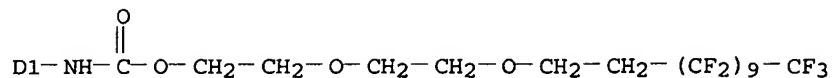
RN 137151-33-8 HCAPLUS  
 CN 2,9,11,18-Tetraazanonadecanedioic acid, 9(or 11)-[[[6-(carboxyamino)hexyl]amino]carbonyl]-10-oxo-, 1,2-dicarboxy-1-(carboxymethyl)ethyl (chloromethyl)-2-[(chloromethyl)-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl)oxy]ethoxy]ethyl 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester (9CI) (CA INDEX NAME)

PAGE 1-A





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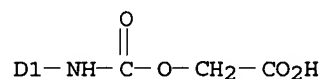
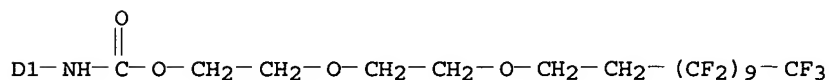
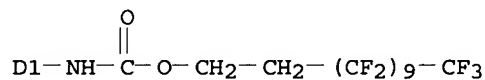
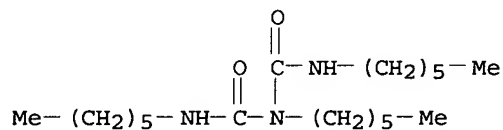


RN 137172-80-6 HCAPLUS  
 CN Carbamic acid, [[[6-(carboxyamino)hexyl]imino]bis(carbonylimino-6,1-hexanediyl)]bis-, carboxymethyl (chloromethyl)-2-[(chloromethyl)-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl)oxy]ethoxy]ethyl 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester, compd. with 1-dodecanamine (1:1) (9CI) (CA INDEX NAME)

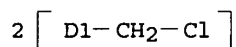
CM 1

CRN 137112-83-5  
 CMF C55 H62 Cl2 F42 N6 O12  
 CCI IDS

PAGE 1-A



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CM 2

CRN 124-22-1

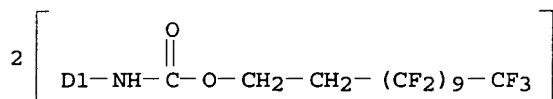
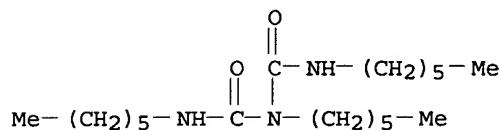
CMF C12 H27 N

 $\text{H}_2\text{N}-(\text{CH}_2)_{11}-\text{Me}$ 

IT 137133-94-9 137151-31-6 137151-32-7

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with carboxylic acids)

RN 137133-94-9 HCAPLUS

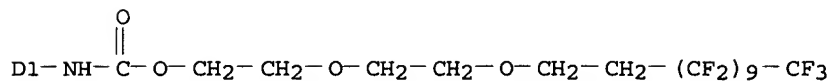
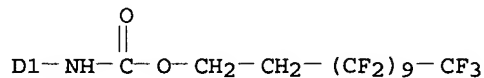
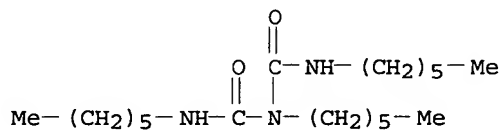
CN Imidodicarbonic diamide, N,N',2-tris(6-isocyanatohexyl)-, adduct  
with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-  
heneicosafuoro-1-dodecanol (1:2) (9CI) (CA INDEX NAME)

D1-NCO

RN 137151-31-6 HCAPLUS

CN Imidodicarbonic diamide, [bis(chloromethyl)-  
18,18,19,19,20,20,21,21,22,22,23,23,24,24,25,25,26,26,27,27,27-  
heneicosafuoro-8-oxo-9,12,15-trioxa-7-azaheptacos-1-yl] [6-  
[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-  
heneicosafuorododecyl)oxy]carbonyl]amino]hexyl]isocyanato- (9CI)  
(CA INDEX NAME)

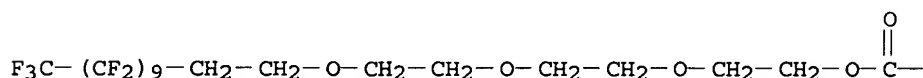
PAGE 1-A



D1-NCO

$$2 \left[ \text{D1-CH}_2\text{-Cl} \right]$$

PAGE 1-A


$$6 \left[ \text{D1-CH}_2\text{-Cl} \right]$$
$$\begin{array}{c} \text{O} \\ \parallel \\ -\text{NH}-(\text{CH}_2)_6-\text{NH}-\text{C}-\text{O}-\text{CH}_2-\text{C}-\text{Et} \\ \parallel \qquad \qquad \qquad \parallel \\ \text{CH}_2-\text{O}-\text{C}-\text{NH}-(\text{CH}_2)_6-\text{NCO} \\ \parallel \qquad \qquad \qquad \parallel \\ \text{CH}_2-\text{O}-\text{C}-\text{NH}-(\text{CH}_2)_6-\text{NH}-\text{C}-\text{O}-\text{CH}_2- \end{array}$$
$$-\text{CH}_2-\text{O}-\text{CH}_2-\text{CH}_2-\text{O}-\text{CH}_2-\text{CH}_2-\text{O}-\text{CH}_2-\text{CH}_2-(\text{CF}_2)_9-\text{CF}_3$$

571-272-2538

fabrics)

IT 137133-94-9 137151-31-6 137151-32-7

140114-41-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with carboxylic acids)

L114 ANSWER 33 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:452032 HCAPLUS

DOCUMENT NUMBER: 115:52032

TITLE: Waxes for skis giving consistent sliding for long times

INVENTOR(S): Tokui, Yasuyuki; Tanaka, Isao; Morimoto, Takuo; Ohtoshi, Sachio; Yamauchi, Masaru

PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan; Asics Corp.

SOURCE: Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
EP 421303	A2	19910410	EP 1990-118706	1990 0928
EP 421303	A3	19910731		
R: AT, CH, DE, FR, IT, LI, SE				
JP 03115395	A2	19910516	JP 1989-251781	1989 0929
JP 07000791	B4	19950111		
JP 03157495	A2	19910705	JP 1989-294829	1989 1115
JP 07000792	B4	19950111		
JP 03157496	A2	19910705	JP 1989-294830	1989 1115
JP 07076351	B4	19950816		
JP 03157497	A2	19910705	JP 1989-294831	1989 1115
JP 07000793	B4	19950111		
JP 03157494	A2	19910705	JP 1989-294832	1989 1115
JP 07076350	B4	19950816		
US 5131674	A	19920721	US 1990-588848	1990 0927
PRIORITY APPLN. INFO.:			JP 1989-251781	A 1989 0929
			JP 1989-294829	A 1989 1115
			JP 1989-294830	A 1989 1115
			JP 1989-294831	A 1989

1115

JP 1989-294832 A

1989

1115

AB The title wax contains perfluoroalkyl compds. (m.p.  $\leq 100^\circ$ ) and, optionally, paraffin wax. Spreading molten C17F15CO2C18H37 (m.p.  $36^\circ$ ) on skis, cooling at  $10^\circ$  for 8 h, and rubbing to a smooth surface gave skis with initial speed 64.52 km/h and average speed 83.51 km/h; vs. 60.03 and 75.88, resp., with a paraffin wax.

IT 134959-87-8

RL: USES (Uses)

(waxes for skis)

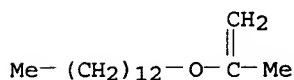
RN 134959-87-8 HCAPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl ester, polymer with 1-[(1-methylethenyl)oxy]tridecane (9CI) (CA INDEX NAME)

CM 1

CRN 134959-86-7

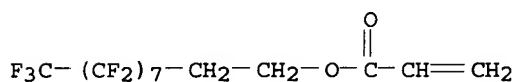
CMF C16 H32 O



CM 2

CRN 27905-45-9

CMF C13 H7 F17 O2



IC ICM C09G003-00

CC 42-11 (Coatings, Inks, and Related Products)

IT 678-39-7 7782-42-5D, Graphite, fluorinated 131883-38-0

134959-87-8

RL: USES (Uses)

(waxes for skis)

L114 ANSWER 34 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:64200 HCAPLUS

DOCUMENT NUMBER: 114:64200

TITLE: Oil-, soil-, and water-repellent compositions for carpets

INVENTOR(S): Sekiwa, Hideyuki; Nakamura, Seiichi

PATENT ASSIGNEE(S): Nippon Mektron Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 02209984

A2

19900821

JP 1989-29675

1989

0210

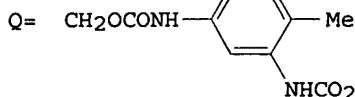
PRIORITY APPLN. INFO.:

JP 1989-29675

1989

0210

GI



AB The title compns. contain (A) aqueous dispersions of  $\text{RCnH}_{2n}\text{OCONHR}_1\text{NHCO}_2\text{R}_2$  [ $\text{R} = \text{C}_{\geq 6}$  perfluoroalkyl,  $\text{R}_1 =$  hydrocarbylene;  $\text{R}_2 =$  (substituted) hydrocarbyl,  $n = 1-4$ ) or  $(\text{RCnH}_{2n}\text{OCONH})\text{aR}_3[\text{NHCO}_2(\text{C}_2\text{H}_4\text{O})\text{mR}_4]3-\text{a}$  ( $\text{R}_3 =$  trivalent hydrocarbon group;  $\text{R}_4 = \text{H}$ , lower alkyl;  $\text{a} = 1-2$ ;  $\text{m} = 10-100$ ), (B) aqueous dispersions of perfluoroalkyl (meth)acrylate polymers, and (C) aqueous dispersions of  $\text{R}_5\text{R}_6\text{C:NOCONHR}_1\text{NHCO}_2\text{N:CR}_5\text{R}_6$  ( $\text{R}_1 =$  hydrocarbylene,  $\text{R}_5, \text{R}_6 =$  lower alkyl). Thus, a composition containing (A) 15% aqueous dispersion of  $\text{C}_9\text{F}_{19}\text{CH}_2\text{QMe}$  and  $\text{EtC}(\text{QC}_2\text{H}_4\text{C}_9\text{F}_{19})(\text{Q}(\text{C}_2\text{H}_4\text{O})_4\text{Me})_2$ , (B) 15% aqueous dispersion of a polymer of  $\text{CH}_2:\text{CCl}_2$ , N-methylolacrylamide, and  $\text{CH}_2:\text{CHCO}_2\text{C}_2\text{H}_4\text{CnF}_{2n+1}$  ( $n = 6, 8, 10, 12$ ), and (c) 15% aqueous dispersion of  $\text{EtMeC:NOCONH}(\text{CH}_2)_6\text{NHCO}_2\text{N:CMeEt}$  at 3:4:3 ratio showed good oil, soil, and water repellency (on nylon carpet).

IT 131630-40-5 131630-48-3

RL: USES (Uses)

(aqueous oil- and soil- and water-repellent dispersions containing, for carpets)

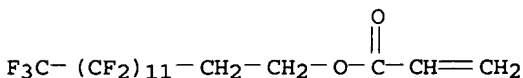
RN 131630-40-5 HCAPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester, polymer with 1,1-dichloroethene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, N-(hydroxymethyl)-2-propenamide, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 34395-24-9

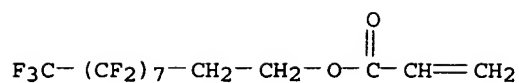
CMF C17 H7 F25 O2



CM 2

CRN 27905-45-9

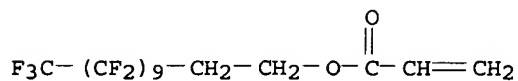
CMF C13 H7 F17 O2



CM 3

CRN 17741-60-5

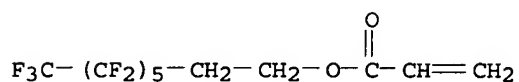
CMF C15 H7 F21 O2



CM 4

CRN 17527-29-6

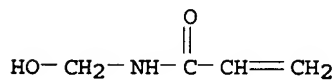
CMF C11 H7 F13 O2



CM 5

CRN 924-42-5

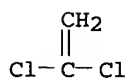
CMF C4 H7 N O2



CM 6

CRN 75-35-4

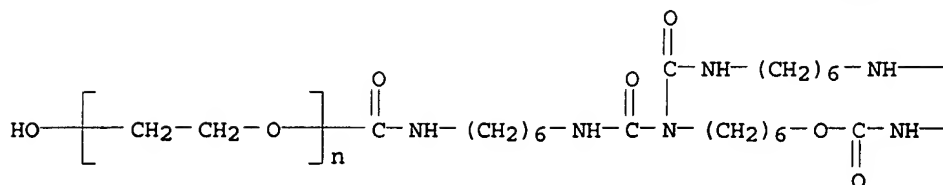
CMF C2 H2 Cl2



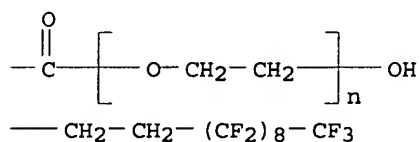
RN 131630-48-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha,\alpha'$ -[11-[6-  
 [[[3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-  
 nonadecafluoroundecyl)amino]carbonyl]oxy]hexyl]-1,10,12,21-  
 tetraoxo-2,9,11,13,20-pentaazaheneicosane-1,21-diyl]bis[ $\omega$ -  
 hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C09K003-18  
ICS C09K003-20  
ICA D06M013-428; D06M015-277  
CC 40-9 (Textiles and Fibers)  
IT 41704-39-6 77337-86-1 80466-15-5 131630-40-5  
131630-47-2 131630-48-3 131851-91-7  
RL: USES (Uses)  
(aqueous oil- and soil- and water-repellent dispersions containing, for carpets)

L114 ANSWER 35 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

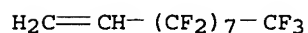
ACCESSION NUMBER: 1991:25475 HCAPLUS  
DOCUMENT NUMBER: 114:25475  
TITLE: Fluoropolymer-coated coasters  
INVENTOR(S): Kamimura, Masakado; Sakata, Shinsuke; Shinjo, Masayoshi  
PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02159219	A2	19900619	JP 1988-315700	1988 1214
PRIORITY APPLN. INFO.:				JP 1988-315700 1988 1214

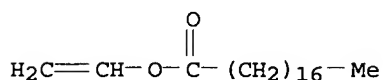
AB The title coasters, with good soilproofing property, no adhesion to cup even at wet condition, and capable for repeated use, have surface layers of C4-21 perfluoroalkyl or alkenyl group-containing compds. Thus, a 1.5-mm paper coaster was coated (0.15  $\mu\text{m}$ ) with a 2% [(OCHRCH<sub>2</sub>)<sub>4</sub>O(CH<sub>2</sub>)<sub>4</sub>]<sub>6</sub> [R = CH<sub>2</sub>(CF<sub>2</sub>)<sub>6</sub>CF(CF<sub>3</sub>)<sub>2</sub>] solution in trifluorochloroethane and dried 30 min to give a coaster having no adhesion to a cup filled with ice water, no soiling by hot coffee drops, and capable to use >10 times, vs. adhered to the cup, soiled by hot coffee, and capable to use only 1 time, for the uncoated coaster.



IT 107066-98-8  
 RL: USES (Uses)  
 (paper coasters coated with, soilproof, with no adhesion to wet cup)  
 RN 107066-98-8 HCAPLUS  
 CN Octadecanoic acid, ethenyl ester, polymer with  
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-decene  
 (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 21652-58-4  
 CMF C10 H3 F17



CM 2  
 CRN 111-63-7  
 CMF C20 H38 O2



IC ICM A47G023-03  
 ICS D21H019-20  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 42  
 IT 88439-27-4 100044-20-0 107015-33-8 107066-98-8  
 125953-58-4 131092-13-2 131092-14-3  
 RL: USES (Uses)  
 (paper coasters coated with, soilproof, with no adhesion to wet cup)

L114 ANSWER 36 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1990:159790 HCAPLUS

DOCUMENT NUMBER: 112:159790

TITLE: Plasticizer antibleeding agents and thermoplastic resins containing them

INVENTOR(S): Amimoto, Yoshio; Shinjo, Masayoshi; Takubo, Seiji

PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 01242641	A2	19890927	JP 1988-70778	1988 0323
JP 2526630	B2	19960821		
PRIORITY APPLN. INFO.:			JP 1988-70778	1988 0323

AB Thermoplastics (e.g., PVC) mixed (or coated) with C4-21 perfluoroalk(en)yl group-containing compds. have smooth, transparent surfaces and good resistance to exudation of plasticizers. A 0.05-mm film of PVC containing 60 phr DOP was spray coated (0.08  $\mu$ m) with F3CCl containing .apprx.1% F(CF<sub>2</sub>)<sub>8</sub>CH<sub>2</sub>CH<sub>2</sub>O<sub>2</sub>CNHR (R = 3-methoxycarbonylamino-4-methylphenyl), rolled, and stored 2 wk at 40° and 90% relative humidity to give a film having a dry feel, peel strength (between 2 films after pressing 24 h at 40° and 30 kg/240 cm<sup>2</sup>) 17 g/4 cm, smooth surface, and good transparency, vs. tacky, 120, smooth, and good, resp., for uncoated PVC film.

IT 107066-98-8

RL: USES (Uses)  
(plasticizer migration inhibitors, for PVC)

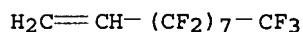
RN 107066-98-8 HCAPLUS

CN Octadecanoic acid, ethenyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluoro-1-decene (9CI) (CA INDEX NAME)

CM 1

CRN 21652-58-4

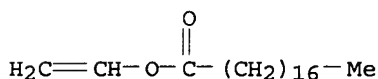
CMF C10 H3 F17



CM 2

CRN 111-63-7

CMF C20 H38 O2



IC ICM C08K005-53

ICS C07C069-63; C07C069-76; C07C125-06; C07F009-09; C07F009-32;  
C07F009-40; C08J007-04; C08K005-02; C08K005-10; C08K005-15;  
C08K005-16; C08K005-41; C08K005-52; C08K005-53

CC 37-6 (Plastics Manufacture and Processing)

IT 2250-98-8 63513-12-2 88439-27-4 99955-83-6 100044-20-0

107066-98-8 125930-25-8 125930-26-9 125930-27-0

125953-58-4 126105-14-4 126108-48-3

RL: USES (Uses)

(plasticizer migration inhibitors, for PVC)

L114 ANSWER 37 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:39776 HCAPLUS

DOCUMENT NUMBER: 108:39776

TITLE: Coating materials

INVENTOR(S): Shimamura, Kiyoshi; Horikawa, Katsuji;

Teraoka, Tsutomu

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 62190264

A2

19870820

JP 1986-31956

1986

0218

JP 06086581

B4

19941102

JP 1986-31956

1986

0218

PRIORITY APPLN. INFO.:

AB Nonsticky, water- and oil-repellent, soiling-resistant coating materials are prepared by reacting 100 parts block copolymers of (meth)acrylate esters containing F and no active H and (meth)acrylate esters containing active H with 0.1-200 parts polyisocyanates and 0.01-150 parts compds. containing >1 active H and >1 polymerizable double bond and mixing 0.1-100 parts these adducts with 100 parts radiation-curable compns. such as acrylic acid ester mixts. Thus, 45:140:15:70 (monomer feed ratio) Me acrylate-Me methacrylate-2-hydroxyethyl acrylate-CH<sub>2</sub>:CHCO<sub>2</sub>C<sub>2</sub>H<sub>4</sub>(CF<sub>2</sub>)<sub>7</sub>CF<sub>3</sub> block copolymer was prepared using a polymeric peroxide, modified with Duranate 24A (hexamethylene diisocyanate biuret) and 2-hydroxyethyl acrylate, mixed with a Duranate 24A-NK ester TMM3L (pentaerythritol triacrylate) adduct, tetrahydrofurfuryl acrylate, trimethylolpropane triacrylate and Irgacure 651, coated on a Deraglass A sheet, and irradiated with a Hg lamp to form a coating.

IT 112284-52-3

RL: TEM (Technical or engineered material use); USES (Uses) (coatings, UV-curable, on PMMA)

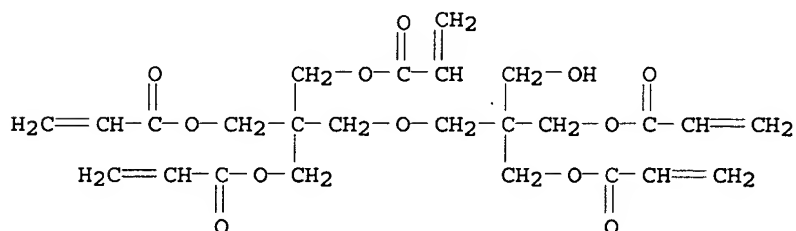
RN 112284-52-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-(2-ethoxyethoxy)ethyl 2-propenoate, ethyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl 2-propenoate, 2-[[[3-hydroxy-2,2-bis[[[1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl 2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-propenoate, 2-[[[3-[[[1-oxo-2-propenyl)oxy]-2,2-bis[[[1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol] tetra-2-propenoate and N,N',2-tris(6-isocyanatohexyl)imidodicarbon ic diamide (9CI) (CA INDEX NAME)

CM 1

CRN 60506-81-2

CMF C25 H32 O12



CM 2

CRN 29570-58-9

CMF C28 H34 O13



CRN 27905-45-9

CMF C13 H7 F17 O2



CRN 7328-17-8

CMF C9 H16 O4



CRN 4035-89-6

CMF C23 H38 N6 O5

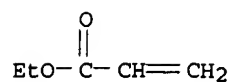


CRN 818-61-1

CMF C5 H8 O3

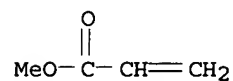


CRN 140-88-5  
CMF C5 H8 O2



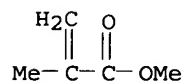
CM 8

CRN 96-33-3  
CMF C4 H6 O2



CM 9

CRN 80-62-6  
CMF C5 H8 O2

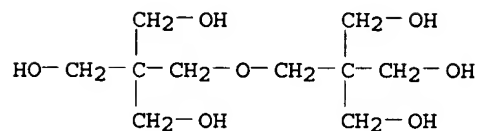


CM 10

CRN 63971-15-3  
CMF C22 H30 O11  
CCI IDS

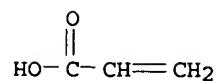
CM 11

CRN 126-58-9  
CMF C10 H22 O7



CM 12

CRN 79-10-7  
CMF C3 H4 O2



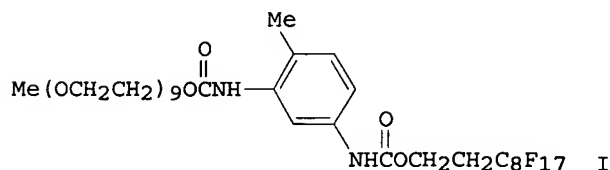
IC ICM C09D003-727  
 ICS C08F002-48; C08F299-06; C08G018-67; C09D005-00  
 CC 42-10 (Coatings, Inks, and Related Products)  
 IT 112250-78-9 112250-79-0 112250-80-3 112250-81-4  
 112250-82-5 112250-83-6 112250-84-7 112250-85-8  
 112275-31-7 112275-32-8 112275-33-9 112275-34-0  
 112275-35-1 112284-52-3 112284-53-4 112284-54-5  
 112284-55-6 112315-76-1  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, UV-curable, on PMMA)

L114 ANSWER 38 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:103929 HCAPLUS  
 DOCUMENT NUMBER: 106:103929  
 TITLE: Deicing coatings not requiring primers, and  
 their application to various articles  
 INVENTOR(S): Enjo, Naonori; Shinjo, Masayoshi; Okazaki,  
 Yasuko; Hayashi, Kazunori  
 PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 37 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 200229	A2	19861105	EP 1986-106033	1986 0502
EP 200229	A3	19880720		
EP 200229	B1	19920311		
R: DE, FR, GB				
JP 61254675	A2	19861112	JP 1985-94888	1985 0502
US 4685967	A	19870811	US 1986-856342	1986 0428
PRIORITY APPLN. INFO.:			JP 1985-94888	A 1985 0502

GI



AB Title coatings comprise solvent-based resin compns. and 0.1-75% (based on resin) C6-20 perfluoroalkyl group-containing urethane, phosphate, phosphonic acid derivative, phosphinic acid derivative, polyether, polyester, and/or polyvinyl compds. Acrylic 1000 (solvent-based acrylic resin coating) was mixed with a solution of I 20, Cl3CCF3 40, and acetone 40%, applied to stainless steel, and

dried at room temperature to give a 10-μ coating that showed ice breaking strength 0.7 kg/cm<sup>2</sup> after freezing for 2 h at -10°, vs. 3.5 for Acrylic 1000 alone.

IT 107066-98-8

RL: USES (Uses)

(coatings containing, for reduced adhesion of ice)

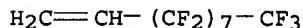
RN 107066-98-8 HCAPLUS

CN Octadecanoic acid, ethenyl ester, polymer with  
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluoro-1-decene  
(9CI) (CA INDEX NAME)

CM 1

CRN 21652-58-4

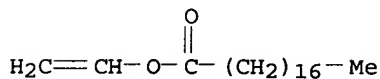
CMF C10 H3 F17



CM 2

CRN 111-63-7

CMF C20 H38 O2



IC ICM C09D005-12

ICS C09K003-18

CC 42-10 (Coatings, Inks, and Related Products)

IT 678-41-1 92661-21-7 107020-94-0 107066-97-7

107066-98-8 107097-76-7

RL: USES (Uses)

(coatings containing, for reduced adhesion of ice)

L114 ANSWER 39 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1986:553710 HCAPLUS

DOCUMENT NUMBER: 105:153710

TITLE: Perfluoroalkylvinyl polymer and its use

INVENTOR(S): Fukui, Shoshin; Shinjo, Masayoshi; Aoyama, Hirokazu; Okazaki, Yasuko; Enjo, Naonori; Hayashi, Kazunori

PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 29 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
EP 184081	A2	19860611	EP 1985-114823	1985 1122
EP 184081	A3	19861029		
EP 184081	B1	19900321		
R: DE, FR, GB				
US 4673712	A	19870616	US 1985-800387	1985

CN 85109162	A	19861001	CN 1985-109162	1121
				1985
				1122
CN 85109162	B	19880622		
JP 61281112	A2	19861211	JP 1985-263320	
				1985
				1122
JP 01026601	B4	19890524		
EP 304056	A1	19890222	EP 1988-113432	
				1985
				1122
EP 304056	B1	19920219		
R: DE, FR, GB				
JP 01158089	A2	19890621	JP 1988-293430	
				1988
				1118
JP 2551126	B2	19961106		
JP 01158092	A2	19890621	JP 1988-293431	
				1988
				1118
JP 08019192	B4	19960228		
PRIORITY APPLN. INFO.:			JP 1984-247803	A
				1984
				1122
			EP 1985-114823	P
				1985
				1122

AB A perfluoroallylsilvinyl copolymer comprises repeating units of CHRCH<sub>2</sub> (R = C<sub>5</sub>-12 perfluoroalkyl) and CHYCHZ or CMe(CO<sub>2</sub>R<sub>1</sub>)CH<sub>2</sub> [Y = OR<sub>2</sub>, CO<sub>2</sub>R<sub>2</sub>, O<sub>2</sub>CR<sub>2</sub>; Z = H, CO<sub>2</sub>R<sub>3</sub>; R<sub>2</sub>, R<sub>3</sub> = C<sub>1</sub>-18 alkyl (when Y = OR<sub>2</sub> or O<sub>2</sub>CR<sub>2</sub>, then Z = H); R<sub>1</sub> = C<sub>1</sub>-18 alkyl]. Thus, CF<sub>3</sub>CF<sub>2</sub>(CF<sub>2</sub>CF<sub>2</sub>)<sub>n</sub>CH:CH<sub>2</sub> (n = 3, 4, 5, 6, 7; 61.94, 27.89, 8.89, 1.2, and 0.08 mol%, resp.) 12.53, Me(CH<sub>2</sub>)<sub>17</sub>OCH:CH<sub>2</sub> 7.47, and tert-butylperoxypropyl carbonate 1.4 g were polymerized at 110° for 6 h, giving a pale yellow grease with glass temperature 23.2°. The product dissolved (1%) in 20:80 acetone-Cl<sub>3</sub>F<sub>3</sub>C<sub>2</sub>. The water and oil repellancy of a polyester fabric dipped into the product-solution was 80 and 70, resp.

IT 104630-54-8P 104630-55-9P 104630-56-0P  
104630-57-1P 104630-58-2P 104630-59-3P  
104630-60-6P 104630-61-7P

RL: PREP (Preparation)

(preparation of, as mold-release agent, water and oil repellent and non-tackifier)

RN 104630-54-8 HCAPLUS

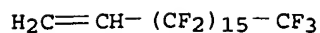
CN 1-Octadecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13, 14,14,15,15,16,16,17,17,18,18,18-tritriacontafuoro-, polymer with 1-(ethenyloxy)-2-methylpropane, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10, 11,11,12,12,12-heneicosafuoro-1-dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16, 16,16-nonacosafuoro-1-hexadecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuoro-1-tetradecene (9CI) (CA INDEX NAME)

CM 1

CRN 104564-29-6

CMF C18 H3 F33

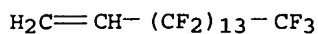




CM 2

CRN 104564-28-5

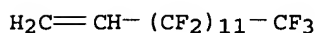
CMF C16 H3 F29



CM 3

CRN 67103-05-3

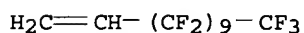
CMF C14 H3 F25



CM 4

CRN 30389-25-4

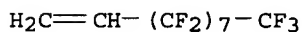
CMF C12 H3 F21



CM 5

CRN 21652-58-4

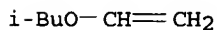
CMF C10 H3 F17



CM 6

CRN 109-53-5

CMF C6 H12 O

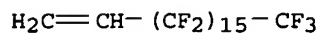


RN 104630-55-9 HCAPLUS

CN Octadecane, 1-(ethenyloxy)-, polymer with  
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-1-  
 dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-  
 decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,  
 15,15,16,16,16-nonacosafuoro-1-hexadecene,  
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-  
 pentacosafuoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1  
 0,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-  
 tritriacontafuoro-1-octadecene (9CI) (CA INDEX NAME)

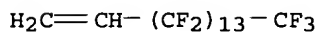
CM 1

CRN 104564-29-6  
CMF C18 H3 F33



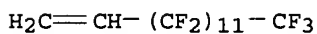
CM 2

CRN 104564-28-5  
CMF C16 H3 F29



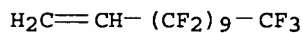
CM 3

CRN 67103-05-3  
CMF C14 H3 F25



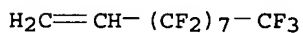
CM 4

CRN 30389-25-4  
CMF C12 H3 F21



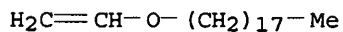
CM 5

CRN 21652-58-4  
CMF C10 H3 F17



CM 6

CRN 930-02-9  
CMF C20 H40 O

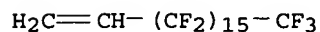


RN 104630-56-0 HCAPLUS  
CN Acetic acid ethenyl ester, polymer with  
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-1-  
dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-  
decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,  
15,15,16,16-nonacosafuoro-1-hexadecene,  
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-  
pentacosafuoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1

0,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-  
tritriacontafluoro-1-octadecene (9CI) (CA INDEX NAME)

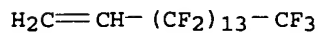
CM 1

CRN 104564-29-6  
CMF C18 H3 F33



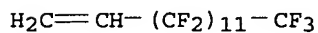
CM 2

CRN 104564-28-5  
CMF C16 H3 F29



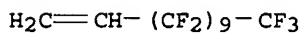
CM 3

CRN 67103-05-3  
CMF C14 H3 F25



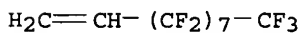
CM 4

CRN 30389-25-4  
CMF C12 H3 F21



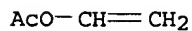
CM 5

CRN 21652-58-4  
CMF C10 H3 F17



CM 6

CRN 108-05-4  
CMF C4 H6 O2



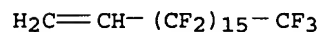
RN 104630-57-1 HCAPLUS  
CN Octanoic acid, ethenyl ester, polymer with  
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-1-  
dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-

decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,  
15,15,16,16,16-nonacosafuoro-1-hexadecene,  
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-  
pentacosafuoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1  
0,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-  
tritriacontafuoro-1-octadecene (9CI) (CA INDEX NAME)

CM 1

CRN 104564-29-6

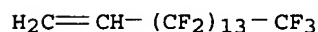
CMF C18 H3 F33



CM 2

CRN 104564-28-5

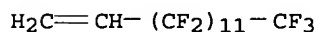
CMF C16 H3 F29



CM 3

CRN 67103-05-3

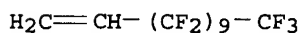
CMF C14 H3 F25



CM 4

CRN 30389-25-4

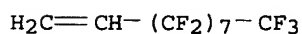
CMF C12 H3 F21



CM 5

CRN 21652-58-4

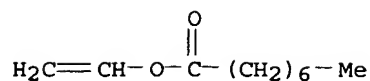
CMF C10 H3 F17



CM 6

CRN 818-44-0

CMF C10 H18 O2



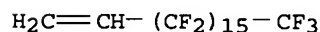
RN 104630-58-2 HCAPLUS

CN Octadecanoic acid, ethenyl ester, polymer with  
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-1-  
 dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-  
 decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,  
 15,15,16,16,16-nonacosafuoro-1-hexadecene,  
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-  
 pentacosafuoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1  
 0,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-  
 tritriacontafuoro-1-octadecene (9CI) (CA INDEX NAME)

CM 1

CRN 104564-29-6

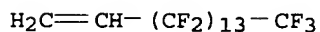
CMF C18 H3 F33



CM 2

CRN 104564-28-5

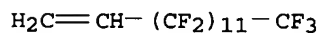
CMF C16 H3 F29



CM 3

CRN 67103-05-3

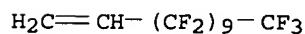
CMF C14 H3 F25



CM 4

CRN 30389-25-4

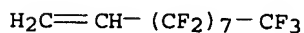
CMF C12 H3 F21



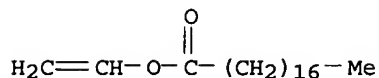
CM 5

CRN 21652-58-4

CMF C10 H3 F17



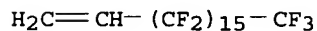
CM 6

CRN 111-63-7  
CMF C20 H38 O2

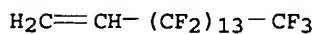
RN 104630-59-3 HCAPLUS

CN 2-Butenedioic acid (2Z)-, dibutyl ester, polymer with  
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-1-  
 dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-  
 decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,  
 15,15,16,16,16-nonacosafuoro-1-hexadecene,  
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-  
 pentacosafuoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,  
 11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-  
 tritriacontafluoro-1-octadecene (9CI) (CA INDEX NAME)

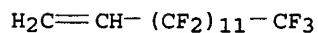
CM 1

CRN 104564-29-6  
CMF C18 H3 F33

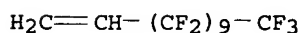
CM 2

CRN 104564-28-5  
CMF C16 H3 F29

CM 3

CRN 67103-05-3  
CMF C14 H3 F25

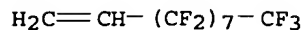
CM 4

CRN 30389-25-4  
CMF C12 H3 F21

CM 5

CRN 21652-58-4

CMF C10 H3 F17

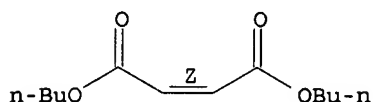


CM 6

CRN 105-76-0

CMF C12 H20 O4

Double bond geometry as shown.



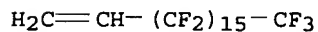
RN 104630-60-6 HCAPLUS

CN 2-Butenedioic acid (2Z)-, dinonyl ester, polymer with  
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-1-  
 dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-  
 decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,  
 15,15,16,16,16-nonacosafuoro-1-hexadecene,  
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-  
 pentacosafuoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1  
 0,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-  
 tritriacontafuoro-1-octadecene (9CI) (CA INDEX NAME)

CM 1

CRN 104564-29-6

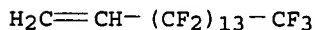
CMF C18 H3 F33



CM 2

CRN 104564-28-5

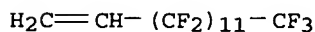
CMF C16 H3 F29



CM 3

CRN 67103-05-3

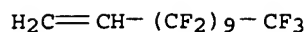
CMF C14 H3 F25



CM 4

CRN 30389-25-4

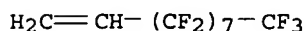
CMF C12 H3 F21



CM 5

CRN 21652-58-4

CMF C10 H3 F17

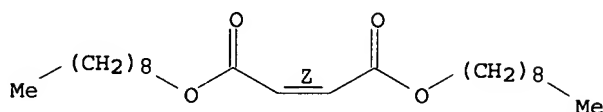


CM 6

CRN 2787-64-6

CMF C22 H40 O4

Double bond geometry as shown.



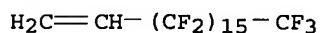
RN 104630-61-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, heptadecyl ester, polymer with  
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-1-  
 dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-  
 decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,  
 15,15,16,16,16-nonacosafuoro-1-hexadecene,  
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-  
 pentacosafuoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1  
 0,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-  
 tritriacontafuoro-1-octadecene (9CI) (CA INDEX NAME)

CM 1

CRN 104564-29-6

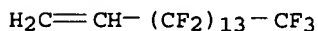
CMF C18 H3 F33



CM 2

CRN 104564-28-5

CMF C16 H3 F29

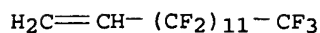


CM 3

CRN 67103-05-3

CMF C14 H3 F25

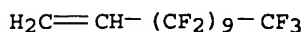




CM 4

CRN 30389-25-4

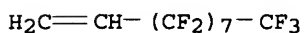
CMF C12 H3 F21



CM 5

CRN 21652-58-4

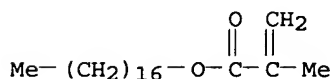
CMF C10 H3 F17



CM 6

CRN 6140-75-6

CMF C21 H40 O2



IC ICM C08F214-18  
 ICI C08F214-18, C08F216-14; C08F214-18, C08F218-04; C08F214-18, C08F218-14; C08F214-18, C08F220-12  
 CC 35-4 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 40, 42  
 ST perfluoroalkylvinyl polymer **water repellent**;  
**oil repellent** perfluoroalkylvinyl polymer  
 IT Polyester **fibers**, uses and miscellaneous  
 RL: USES (Uses)  
 (fabrics, water and **oil-repellents**  
 for, perfluoroalkylvinyl polymers as)  
 IT Fluoropolymers  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (manufacture of, as water- and **oil-repellents**,  
 mold-release agents and nontackifiers)  
 IT Waterproof materials and **Water-repellent**  
 materials  
 (perfluoroalkylvinyl polymers for)  
 IT **Coating materials**  
 (oil- and **water-repellent**,  
 perfluoroalkylvinyl copolymers as additives for)  
 IT 104630-54-8P 104630-55-9P 104630-56-0P  
 104630-57-1P 104630-58-2P 104630-59-3P  
 104630-60-6P 104630-61-7P  
 RL: PREP (Preparation)  
 (preparation of, as mold-release agent, water and **oil**  
**repellent** and non-tackifier)

L114 ANSWER 40 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1976:510229 HCAPLUS

DOCUMENT NUMBER: 85:110229  
 TITLE: Fluorine and sulfur-containing compositions  
 INVENTOR(S): Hager, Robert B.; Toukan, Sameeh S.  
 PATENT ASSIGNEE(S): Pennwalt Corp., USA  
 SOURCE: U.S., 10 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

PATENT NO. -----	KIND ---	DATE -----	APPLICATION NO. -----	DATE
US 3948887	A	19760406	US 1974-459258	1974 0408
GB 1437255	A	19760526	GB 1973-38075	1973 0810
FR 2199536	A1	19740412	FR 1973-30750	1973 0824
JP 49059090	A2	19740607	JP 1973-94510	1973 0824
IT 990322	A	19750620	IT 1973-52171	1973 0824
FR 2207934	A1	19740621	FR 1974-1251	1974 0115
FR 2207934	B1	19790323		
FR 2207948	A1	19740621	FR 1974-1252	1974 0115
FR 2207948	B1	19780324		
FR 2207927	A1	19740621	FR 1974-1253	1974 0115
US 3883596	A	19750513	US 1974-459136	1974 0408
US 3899484	A	19750812	US 1974-459144	1974 0408
US 4113748	A	19780912	US 1974-459132	1974 0408
PRIORITY APPLN. INFO.:			US 1972-283886	A3 1972 0825

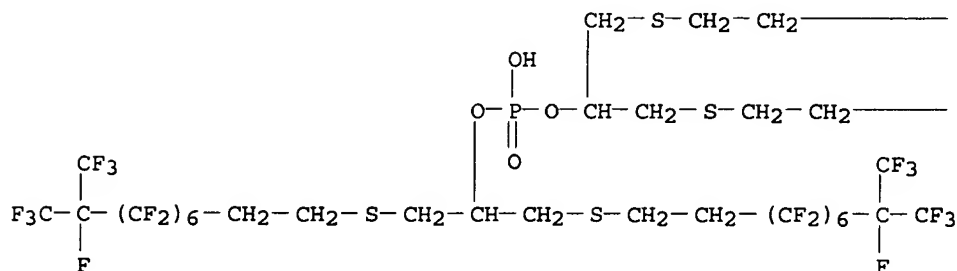
AB The reaction of bis[(fluoroalkylthio)methyl]methanols (adhesion promoters), obtained from perfluoroalkanethiol and epoxide, with 2,4-toluene diisocyanate gave carbamates useful as oil and H2O repellent for leather, **textiles** and paper. Thus, 0.8% bis(perfluoro(7-methyloctyl)ethylthiomethyl)methyl phenyl 4-methyl-1,3-benzenedicarbamate solution in CH3CCl3 was sprayed onto sueded pigskin to give a specimen with 100+ oil and 100-H2O initial repellency rating (AATCC Standard Test method 52-1952).

IT 53122-44-4  
 RL: USES (Uses)  
 (oil and **water repellent**, for paper)

RN 53122-44-4 HCAPLUS

CN 2-Propanol, 1,3-bis[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-

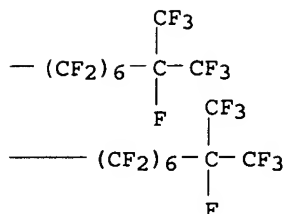
PAGE 1-A


$$\begin{array}{c} \text{CF}_3 \\ | \\ -(\text{CF}_2)_6-\text{C}-\text{CF}_3 \\ | \\ \text{F} \end{array} \quad \begin{array}{c} \text{CF}_3 \\ | \\ -(\text{CF}_2)_6-\text{C}-\text{CF}_3 \\ | \\ \text{F} \end{array}$$

CN Phosphorochloridic acid, bis[2-[[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-hexadecafluoro-9-(trifluoromethyl)decyl]thio]-1-[[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-hexadecafluoro-9-(trifluoromethyl)decyl]thio]methyl]ethyl] ester (9CI) (CA INDEX NAME)

[illegible]

PAGE 1-B

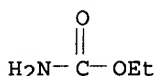


IT 51-79-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (transesterification of, with bis[(fluoroalkylthio)methyl]metha  
 nols)

RN 51-79-6 HCAPLUS

CN Carbamic acid, ethyl ester (8CI, 9CI) (CA INDEX NAME)



IC C07D

INCL 260239000E

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 39, 41

ST fluoroalkylthiomethyl carbamate **water repellent**; **oil repellent** fluoroalkylthiomethylcarbamate; leather oil **water repellent**IT **Oils**

RL: USES (Uses)

(-**repellents**, bis(fluoroalkylthiomethyl)methylcarbamates, for leather and **textiles**)IT Waterproof materials and **Water-repellent**

materials

(bis(fluoroalkylthiomethyl)methyl carbamates, for leather and

**textiles**)

IT Leather

Paper

**Textiles**(oil and **water repellents** for,

bis(fluoroalkylthiomethyl)methyl carbamates as)

IT **Coating materials**

(poly(vinylidene fluoride), containing

(fluoroalkylthiomethyl)oxirane, for improved adhesion and flow  
 properties)

IT 41945-92-0

RL: USES (Uses)

(oil and **water repellent** manufacture from)

IT 59544-10-4

RL: USES (Uses)

(oil and **water repellent**, for cotton)

IT 75-55-8D, Aziridine, 2-methyl-, reaction products with  
 bis(nonafluoroundecylthiomethyl)methanol, toluene diisocyanate and  
 trimethylolpropane 100-51-6D, Benzenemethanol, reaction products  
 with bis(nonafluoroundecylthiomethyl)methanol, methylaziridine,  
 toluene diisocyanate and trimethylolpropane 109-89-7D,  
 Ethanamine, N-ethyl-, reaction products with  
 bis(nonafluoroundecylthiomethyl)methanol, methylaziridine, toluene  
 diisocyanate and trimethylolpropane 112-70-9D, 1-Tridecanol,  
 reaction products with bis(fluoroalkylthiomethyl)methanol,  
 ethylenimine, TDI, and trimethylolpropane 151-56-4D, Aziridine,

reaction products with bis(nonafluoroundecylthiomethyl)methanol, heptacosanol, toluene diisocyanate and trimethylolpropane 3710-84-7D, Ethanamine, N-ethyl-N-hydroxy-, reaction products with bis(nonafluoroundecylthiomethyl)methanol, methylaziridine, toluene diisocyanate and trimethylolpropane 52978-10-6D, Ethanol, 2-[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-hexadecafluoro-9-(trifluoromethyl)decyl]thio]-, reaction products with allyl alc., aziridine, and TDI

RL: USES (Uses)

(oil and water repellent, for cotton textiles)

IT 77-99-6D, 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, reaction products with bis(perfluoroalkylthiomethyl) methanol and toluene diisocyanate 107-18-6D, 2-Propen-1-ol, reaction products with aziridine, bis[(fluoroalkylthio)methyl]methanols, and toluene diisocyanate 584-84-9D, Benzene, 2,4-diisocyanato-1-methyl-, reaction products with bis(perfluoroalkanethiomethyl)methanol and trimethylolpropane

RL: USES (Uses)

(oil and water repellent, for leather)

IT 52984-99-3

RL: USES (Uses)

(oil and water repellent, for leather and textiles)

IT 53122-44-4

RL: USES (Uses)

(oil and water repellent, for paper)

IT 59566-63-1

RL: USES (Uses)

(oil and water repellent, for textiles and paper)

IT 41946-02-5

RL: USES (Uses)

(oil and water repellents, for textiles)

IT 59537-50-7

RL: USES (Uses)

(oil repellent, for cotton-polyester fabrics)

IT 41946-08-1P 41946-09-2P 52978-09-3P 52985-02-1P

59529-52-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

IT 51-79-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(transesterification of, with bis[(fluoroalkylthio)methyl]methanols)

L114 ANSWER 41 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1975:47762 HCAPLUS

DOCUMENT NUMBER: 82:47762

TITLE: Thromboresistant biomedical polymers with fluoroalkyl side chains

INVENTOR(S): Schwarcz, Andor

SOURCE: U.S., 7 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
-----				
US 3839743	A	19741008	US 1973-406547	1973

PRIORITY APPLN. INFO.:

US 1972-246327

1015

A2

1972

0421

AB The thromboresistant biomedical articles are composed, at least on their surface, of an organic polymer having side chains  $C_nF_{2n+1}C_mH_{2m-}$ , in which n is 1-28 and the sum of n and m is 2-28. The number of fluoroalkyl side chains relative to the number of main chain atoms in 1 recurring unit ranges from 1:2 to 1:10. The polymeric material has another side group chemical bonded to the main chain; the side group is H, halogen, aryl, lower alkyl, or simple anionic groups. Thus, 90 g (0.1 moles) of 1,1-dihydrotritriacontafluoroheptadecyl acrylate and 1.14 g (0.01 moles) of 1-hexanoic acid are copolymerized, by using 0.5% azobisisobutyronitrile as the initiator and toluene as the solvent medium. The reaction is carried out at 75-80° for 16 hr to give the copolymer. The intrinsic viscosity measured in hexafluorodimethylbenzene is 0.2. A glass tube is then treated with a 5% trichlorotrifluoroethylene solution of the copolymer by filling the tube, inverting it, and allowing the excess liquid to drain out. After evaporation of the solvent, the coated test tube is sterilized. Five ml of freshly drawn whole blood from the lower vena cava of a rabbit is added and the test tube is periodically tipped to observe clot formation. No evidence of clot formation is observed for several hr. A control test tube, not coated with a layer of the copolymer, is tested in an identical manner and clotting occurs in 7 min.

IT 54191-32-1

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction with silicone rubber)

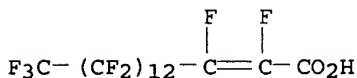
RN 54191-32-1 HCAPLUS

CN 2-Hexadecenoic acid, 2,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuoro-, polymer with 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18-heptatriacontafuoro-18-[(trifluoroethenyl)oxy]octadecane (9CI) (CA INDEX NAME)

CM 1

CRN 54191-31-0

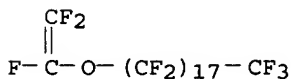
CMF C16 H F29 O2



CM 2

CRN 54191-30-9

CMF C20 F40 O



IC A61F; A61M

INCL 003001000

CC 63-7 (Pharmaceuticals)

IT 54191-32-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction with silicone rubber)

L114 ANSWER 42 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1974:553076 HCAPLUS  
 DOCUMENT NUMBER: 81:153076  
 TITLE: Sulfur-containing fluorocarbons  
 INVENTOR(S): Hager, Robert B.; Toukan, Sameeh S.; Walter, Gerald Joseph  
 PATENT ASSIGNEE(S): Pennwalt Corp.  
 SOURCE: Ger. Offen., 31 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

PATENT NO. -----	KIND ---	DATE -----	APPLICATION NO. -----	DATE
DE 2342888	A1	19740307	DE 1973-2342888	1973 0824
GB 1437255	A	19760526	GB 1973-38075	1973 0810
FR 2199536	A1	19740412	FR 1973-30750	1973 0824
JP 49059090	A2	19740607	JP 1973-94510	1973 0824
IT 990322	A	19750620	IT 1973-52171	1973 0824
FR 2207934	A1	19740621	FR 1974-1251	1974 0115
FR 2207934	B1	19790323		
FR 2207948	A1	19740621	FR 1974-1252	1974 0115
FR 2207948	B1	19780324		
FR 2207927	A1	19740621	FR 1974-1253	1974 0115
US 3883596	A	19750513	US 1974-459136	1974 0408
US 3899484	A	19750812	US 1974-459144	1974 0408
US 4113748	A	19780912	US 1974-459132	1974 0408
PRIORITY APPLN. INFO.:			US 1972-283886	A 1972 0825

AB Bis[[2-[7-(trifluoromethyl)perfluorooctyl]ethylthio]methyl]methano-  
 1 (I) [40099-98-7], 3-[2-[7-(trifluoromethyl)  
 perfluorooctyl]ethylthio]-1,2-propanediol [41945-92-0], and  
 2-[2-[7-(trifluoromethyl)perfluorooctyl]ethylthio]ethanol  
 [52978-10-6] were prepared and used in the preparation of urethane,  
 alkyd, acrylate, and other resins useful as oil- and water  
 -repellent coatings on leather, textiles, etc.  
 Thus, 2-[7-(trifluoromethyl)perfluorooctyl]ethanethiol

[28505-86-4] in EtOH was treated slowly with NaOH and epichlorohydrin [106-89-8] to prepare I which (0.0315 mole) was added to the reaction product of 0.094 mole 2,4-tolylene diisocyanate [584-84-9] and 0.0315 mole trimethylolpropane [77-99-6] to prepare a product, containing isocyanate groups, useful for water- and oil-repellent finishing of leather or for further reactions.

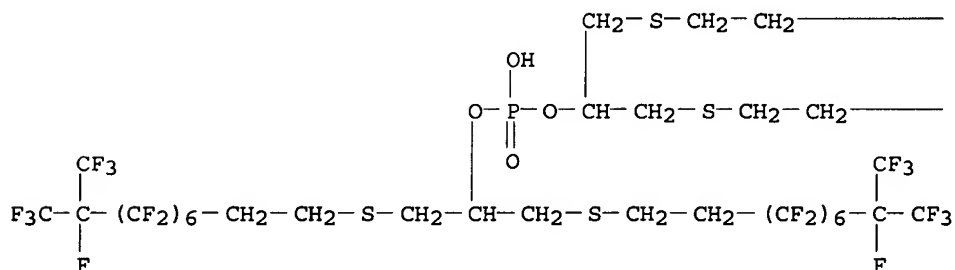
IT 53122-44-4P

RL: PREP (Preparation)  
(preparation of)

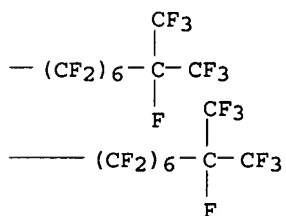
RN 53122-44-4 HCAPLUS

CN 2-Propanol, 1,3-bis[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-hexadecafluoro-9-(trifluoromethyl)decyl]thio]-, hydrogen phosphate (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 53122-45-5

RL: USES (Uses)  
(solvent-resistant coatings, for paper)

RN 53122-45-5 HCAPLUS

CN 2-Propanol, 1,3-bis[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-hexadecafluoro-9-(trifluoromethyl)decyl]thio]-, hydrogen phosphate, compd. with 2-aminoethanol (1:1) (9CI) (CA INDEX NAME)

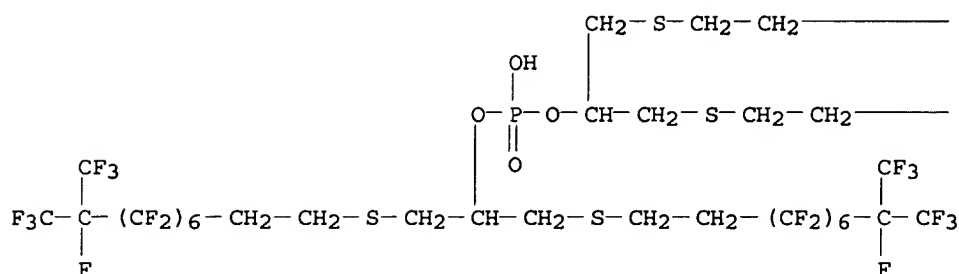
CM 1

CRN 53122-44-4

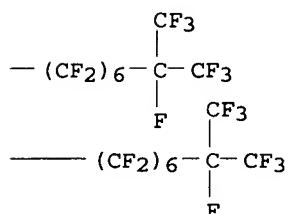
CMF C50 H27 F76 O4 P S4



PAGE 1-A



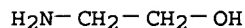
PAGE 1-B



CM 2

CRN 141-43-5

CMF C2 H7 N O

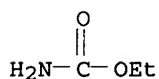


IT 51-79-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (transesterification of, by bis[(perfluoroisononyl)ethylthiometh-  
 hyl] methanol)

RN 51-79-6 HCAPLUS

CN Carbamic acid, ethyl ester (8CI, 9CI) (CA INDEX NAME)



IC C07C; C07F; C09D; D06M

CC 35-3 (Synthetic High Polymers)  
 Section cross-reference(s): 23, 41

ST fluoroalkylthioalkanol; thioalkanol fluoroalkyl; alc  
 fluoroalkylthioalkyl; oil repellent finish;  
 water repellent finish; urethane  
 fluoroalkylthioalkanol polymer; alkyd fluoroalkylthioalkanol  
 polymer; acrylate fluoroalkylthioalkyl polymer

IT Coating materials

(fluorine-containing acrylate and urethane polymers)

IT Alkyd resins

Urethane polymers, uses and miscellaneous

RL: USES (Uses)

- (fluorine-containing, oil- and water-repellent finishes, for textiles)
- IT Waterproofing  
(of textiles and leather, fluorine-containing resins for)
- IT Leather  
Textiles  
(oil- and water-repellent, fluorine-containing resins for)
- IT 1,3-Propanediol, 1,3-bis[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-hexadecafluoro-9-(trifluoromethyl)decyl]thio]-, reaction products with carboxylic acids and isocyanates  
RL: USES (Uses)  
(oil- and water-repellent finishes)
- IT 2,5-Furandione, polymer with ethene, esters with bis[(perfluoroisononyl)ethylthiomethyl]methanol  
Ethene, polymer with 2,5-furandione, esters with bis[(perfluoroisononyl)ethylthiomethyl]methanol  
RL: USES (Uses)  
(oil-repellent finishes, for textiles)
- IT 52984-96-0 52984-97-1 53041-38-6  
RL: USES (Uses)  
(fluoroalkylthioalkanol-modified, oil- and water-repellent finishes)
- IT 77-99-6D, 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, reaction products with tolylene diisocyanate and bis[(perfluoroisononyl)ethylthiomethyl]methanol 584-84-9D, Benzene, 2,4-diisocyanato-1-methyl-, reaction products with trimethylolpropane and bis[(perfluoroisononyl)ethylthiomethyl]methanol 53122-39-7 53122-40-0 53122-41-1 53122-42-2  
RL: USES (Uses)  
(oil- and water-repellent finishes)
- IT 41946-02-5 52985-00-9 52985-01-0  
RL: USES (Uses)  
(oil- and water-repellent finishes, for textiles)
- IT 52984-98-2 52984-99-3 52985-02-1  
RL: USES (Uses)  
(oil- and water-resistant finishes, for textiles)
- IT 41946-08-1P 41946-09-2P 52978-09-3P 52978-10-6P 52978-11-7P 53122-43-3P 53122-44-4P  
RL: PREP (Preparation)  
(preparation of)
- IT 53122-45-5  
RL: USES (Uses)  
(solvent-resistant coatings, for paper)
- IT 51-79-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(transesterification of, by bis[(perfluoroisononyl)ethylthiomethyl] methanol)

L114 ANSWER 43 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1972:420366 HCAPLUS

DOCUMENT NUMBER: 77:20366

TITLE: Textile-treating polymers of perfluoro esters of fumaric acid and other ethylenically unsaturated polybasic acids

INVENTOR(S): Kleiner, Eduard K.; Knell, Martin

PATENT ASSIGNEE(S): Ciba-Geigy A.-G.

SOURCE: Ger. Offen., 49 pp. Division of Ger. Offen. 1,918,079 (CA 72;22557a).

CODEN: GWXXBX

DOCUMENT TYPE: Patent

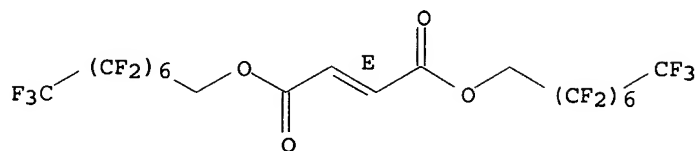
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:



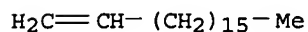
Double bond geometry as shown.



CM 2

CRN 112-88-9

CMF C18 H36



RN 36463-54-4 HCAPLUS

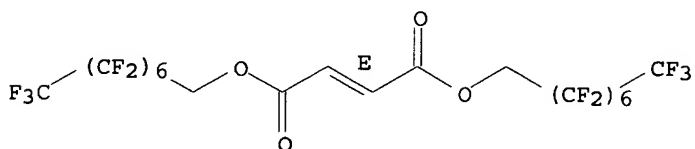
CN 2-Butenedioic acid (2E)-, bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl) ester, polymer with 1-(ethenyloxy)dodecane (9CI) (CA INDEX NAME)

CM 1

CRN 24120-18-1

CMF C20 H6 F30 O4

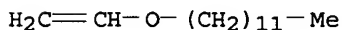
Double bond geometry as shown.



CM 2

CRN 765-14-0

CMF C14 H28 O



RN 36463-55-5 HCAPLUS

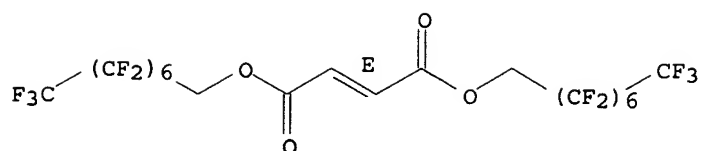
CN 2-Butenedioic acid (2E)-, bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl) ester, polymer with 1-(ethenyloxy)hexadecane (9CI) (CA INDEX NAME)

CM 1

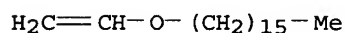
CRN 24120-18-1

CMF C20 H6 F30 O4

Double bond geometry as shown.



CM 2

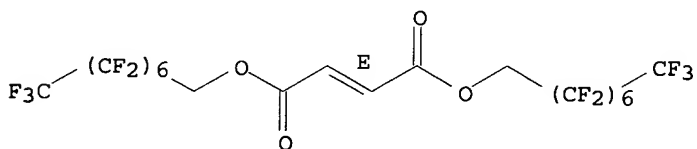
CRN 822-28-6  
CMF C18 H36 O

RN 36463-56-6 HCAPLUS  
 CN 2-Butenedioic acid (2E)-, bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl) ester, polymer with 1-(ethenyloxy)octadecane (9CI) (CA INDEX NAME)

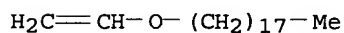
CM 1

CRN 24120-18-1  
CMF C20 H6 F30 O4

Double bond geometry as shown.



CM 2

CRN 930-02-9  
CMF C20 H40 O

IC C08F  
 CC 35-3 (Synthetic High Polymers)  
 IT

9069-74-3	9069-75-4	9069-76-5	9069-77-6	26338-00-1
26338-01-2	26338-02-3	26338-03-4	26338-04-5	26470-18-8
36201-52-2	36201-53-3	36201-54-4	36201-55-5	36201-56-6
36201-57-7	36223-25-3	<b>36223-26-4</b>	36223-27-5	
36223-28-6	36223-29-7	36223-30-0	36223-31-1	36223-32-2
36223-33-3	36223-34-4	36223-35-5	36223-36-6	
<b>36223-37-7</b>	36223-38-8	36223-39-9	36223-40-2	
36223-41-3	36223-42-4	36223-43-5	36223-44-6	36223-45-7
36223-46-8	36223-47-9	36223-48-0	36223-49-1	36427-09-5
36427-18-6	36427-19-7	36427-20-0	36427-21-1	36427-22-2
36427-23-3	36427-24-4	36427-25-5	36427-26-6	36463-42-0
36463-43-1	36463-44-2	36463-45-3	36463-46-4	36463-47-5
36463-48-6	36463-49-7	36463-50-0	36463-51-1	36463-52-2
36463-53-3	<b>36463-54-4</b>	<b>36463-55-5</b>		
<b>36463-56-6</b>	36463-57-7	36463-58-8	36463-59-9	

36463-60-2 36463-61-3 36463-62-4 36463-63-5 36463-64-6  
 36463-65-7 36463-66-8 36509-77-0

RL: USES (Uses)  
 (oil- and water-repellents for textiles)

L114 ANSWER 44 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1972:114778 HCAPLUS  
 DOCUMENT NUMBER: 76:114778  
 TITLE: Polymerizable perfluoroalkylmonocarboxylic  
 acid esters oil repellents for textiles  
 PATENT ASSIGNEE(S): CIBA Ltd.  
 SOURCE: Fr., 41 pp.  
 CODEN: FRXXAK  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2054241		19710521	FR CH	1969 0707

PRIORITY APPLN. INFO.:

AB The perfluoroalkyl esters were prepared by treating a C4-24 perfluoroalkyl acid with an acyclic aliphatic epoxide. At room temperature, glycidyl methacrylate in perfluorocaprylic acid was treated with NaOAc in EtOAc, and hydroquinone monomethyl ether stabilizer was added to give 2-hydroxy-3-(perfluoroheptylcarbonyloxy)propyl methacrylate [34569-65-8] or 3-hydroxy-2-(perfluoroheptylcarbonyloxy)propyl methacrylate [34578-21-7], which was polymerized in EtOAc containing K2S2O8 catalyst. The polymer solution was used to impregnate cotton, polyamide, and polyester fabrics to leave them oil repellent. Nine other esters were similarly prepared

IT 9071-80-1

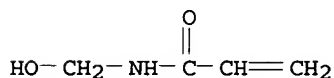
RL: USES (Uses)  
 (oilproofing agents, for synthetic fibers and textiles)

RN 9071-80-1 HCAPLUS

CN Octadecanoic acid, 9,10-dihydroxy-, ethenyl ester, mono(pentadecafluorooctanoate), polymer with N-(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 924-42-5  
 CMF C4 H7 N O2



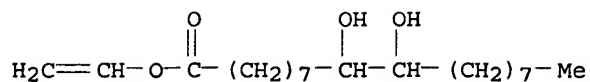
CM 2

CRN 50853-39-9  
 CMF C28 H37 F15 O5  
 CCI IDS

CM 3

CRN 3195-21-9

CMF C20 H38 O4



CM 4

CRN 335-67-1

CMF C8 H F15 O2

F<sub>3</sub>C-(CF<sub>2</sub>)<sub>6</sub>-CO<sub>2</sub>H

IC C07C; C08F; C06M

CC 39 (Textiles)

IT 9070-70-6 9070-71-7 9070-94-4 9071-19-6 9071-75-4

9071-77-6 9071-80-1

RL: USES (Uses)

(oilproofing agents, for synthetic fibers and textiles)

L114 ANSWER 45 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1971:23612 HCAPLUS

DOCUMENT NUMBER: 74:23612

TITLE: Fluorinated organic compounds and their polymers

INVENTOR(S): Hauptschein, Murray; Hager, Robert B.; Allen, Thomas Clark

PATENT ASSIGNEE(S): Pennsalt Chemicals Corp.

SOURCE: Brit., 15 pp.

CODEN: BRXXAA

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1211034		19701104	GB	
US 3544663		19700000	US	

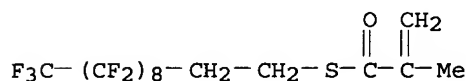
PRIORITY APPLN. INFO.:

US

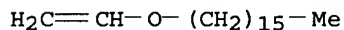
1967  
0130

AB Fluorinated organic compds. of the formula RCH<sub>2</sub>CH<sub>2</sub>SC(O)C(R<sub>1</sub>):CH<sub>2</sub> (I), where R is C<sub>5</sub>-13 perfluoroalkyl and R<sub>1</sub> is H or Me, and their polymers were prepared and used in textile finishing compns. Thus, methacryloyl chloride was refluxed with a solution of 2-(perfluoro-7-methyloctyl)ethyl mercaptan, Et<sub>3</sub>N, and hydroquinone, and the salt product was separated, dried, and treated with N,N'-diphenyl-p-phenylenediamine to give 2-(perfluoro-7-methyloctyl)ethyl thiomethacrylate (II). II was polymerized in a solution of Me<sub>2</sub>CO, methylolacrylamide, deoxygenated H<sub>2</sub>O, trimethylhexadecylammonium bromide (Acetoquat CTAB) and azodiisobutyramidine dihydrochloride. This fluorinated latex was mixed with a nonfluorinated latex such as poly(n-decyl methacrylate), a creaseproofing resin (Permafresh 183), aqueous Zn(NO<sub>3</sub>)<sub>2</sub>, and an extender (Norane F) to give a bath which was used to pad cotton textiles. The padded textiles had good water and oil repellency and retained this repellency after numerous laundering and drying cycles.

IT 30660-63-0  
 RL: USES (Uses)  
 (in waterproofing of textiles)  
 RN 30660-63-0 HCAPLUS  
 CN Acrylic acid, 2-methylthio-, S-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoroundecyl) ester, polymer with hexadecyl vinyl ether (8CI) (CA INDEX NAME)  
 CM 1  
 CRN 45310-42-7  
 CMF C15 H9 F19 O S



CM 2  
 CRN 822-28-6  
 CMF C18 H36 O



IC C07C  
 CC 39 (Textiles)  
 IT 26797-74-0 29320-53-4 30660-58-3 30660-59-4 30660-60-7  
 30660-61-8 30660-62-9 30660-63-0 30661-93-9  
 RL: USES (Uses)  
 (in waterproofing of textiles)

L114 ANSWER 46 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1969:514118 HCAPLUS  
 DOCUMENT NUMBER: 71:114118  
 TITLE: Emulsifiers for silicones  
 PATENT ASSIGNEE(S): Henkel und Cie. G.m.b.H.  
 SOURCE: Fr., 6 pp.  
 CODEN: FRXXAK  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
FR 1565387		19690502	FR	
DE 1694381			DE	
DE 1694382			DE	
PRIORITY APPLN. INFO.:			DE	
				1966
				1214
			DE	
				1967
				0114

AB HCHO is condensed with dicyandiamide, stearylamine, and HCO<sub>2</sub>H to prepare an emulsifier which is especially useful for preparing aqueous dispersions of poly(methylsiloxane), poly(dimethylsiloxane), and similar silicones because the emulsifier hardens and loses its



emulsifying activity when the silicone is heated in the presence of a conventional hardening agent [e.g.,  $\text{Zn}(\text{NO}_3)_2$ ] for the silicone. Similar hardenable emulsifiers are prepared by the condensation of  $\text{HCHO}$  or paraformaldehyde with melamine and hydroxystearic acid, with dicyandiamide and stearylbiguanide-HCl, with stearylguanidine-HCl and  $\text{HCO}_2\text{H}$ , with dodecylbiguanide, with guanidine-HCl and perfluorononyl-guanidine formate, with cocoamine,  $\text{HCO}_2\text{H}$ , and melamine, and with similar compds. The emulsifiers are especially useful for the application of water-repellent and, in some cases, crease-resistant (i.e., containing dimethylolethyleneurea or dimethylolpropyleneurea) silicone coatings to cotton fabrics because the emulsifiers are inactivated during curing and do not adversely affect the adhesion and wash resistance of the coating. Thus, a mixture of 75 g. 30%  $\text{HCHO}$  solution, 42 g. dicyandiamide, 6.75 g. stearylamine, 12.5 ml. 2N  $\text{HCl}$ , and 30 g. iso- $\text{PrOH}$  was agitated 5 hrs. at  $80^\circ$ , treated during 30 min. with 27.1 g. 85%  $\text{HCO}_2\text{H}$ , agitated 1 hr. at  $80^\circ$ , and cooled to give a white paste which (1 part) was dissolved in 74 parts boiling water. The solution was cooled, adjusted to pH 4 with  $\text{AcOH}$ , homogenized with 15 parts poly(methylsiloxane) (mol. weight 2500) and 7.5 parts iso- $\text{PrOH}$ . This stable emulsion (80 ml.) was diluted with 100 ml. water (pH 4), mixed with 720 ml. water (pH 4) containing 0.8 g.  $\text{SnCl}_2 \cdot 2\text{H}_2\text{O}$ , and applied to cotton poplin fabric (80% wet pickup). After being dried at  $100^\circ$  and cured for 5 min. at  $150^\circ$ , a water-repellent coating having good resistance to washing and scrubbing was obtained.

IT 26283-97-6

RL: USES (Uses)

(reaction products with acids, as hardenable emulsifying agents for siloxanes)

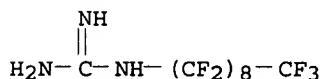
RN 26283-97-6 HCAPLUS

CN Formic acid, compd. with (nonadecafluorononyl)guanidine, polymer with formaldehyde and guanidine (9CI) (CA INDEX NAME)

CM 1

CRN 45305-54-2

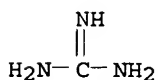
CMF C10 H4 F19 N3



CM 2

CRN 113-00-8

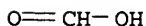
CMF C H5 N3



CM 3

CRN 64-18-6

CMF C H2 O2



CM 4

CRN 50-00-0

CMF C H2 O

 $\text{H}_2\text{C}=\text{O}$ 

IC C08G; D06M

CC 39 (Textiles)

IT 26283-87-4 26283-93-2 26283-94-3 26283-95-4 26283-96-5

26283-97-6 26678-51-3

RL: USES (Uses)

(reaction products with acids, as hardenable emulsifying agents  
for siloxanes)

=&gt; =&gt; d que stat l117

L2 13 SEA FILE=REGISTRY ABB=ON PLU=ON (104559-01-5/BI OR  
112-92-5/BI OR 112-96-9/BI OR 1344-28-1/BI OR 25038-54-  
4/BI OR 25085-53-4/BI OR 25685-29-4/BI OR 306997-46-6/B  
I OR 32131-17-2/BI OR 53200-31-0/BI OR 7631-86-9/BI OR  
852161-27-4/BI OR 9003-39-8/BI)

L3 SCR 1918 OR 1838

L4 STR

C~C F~Ak~CF3  
1 2 3 4 5

## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS LIN SAT AT 4

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M3-X7 C AT 4

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 5

## STEREO ATTRIBUTES: NONE

L5 29911 SEA FILE=REGISTRY SSS FUL L4 NOT L3

L6 SCR 1918 OR 1838

L7 STR

C~C F~Ak~CF3  
1 2 3 4 5

## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS LIN SAT AT 4

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M3-X7 C AT 4

## GRAPH ATTRIBUTES:

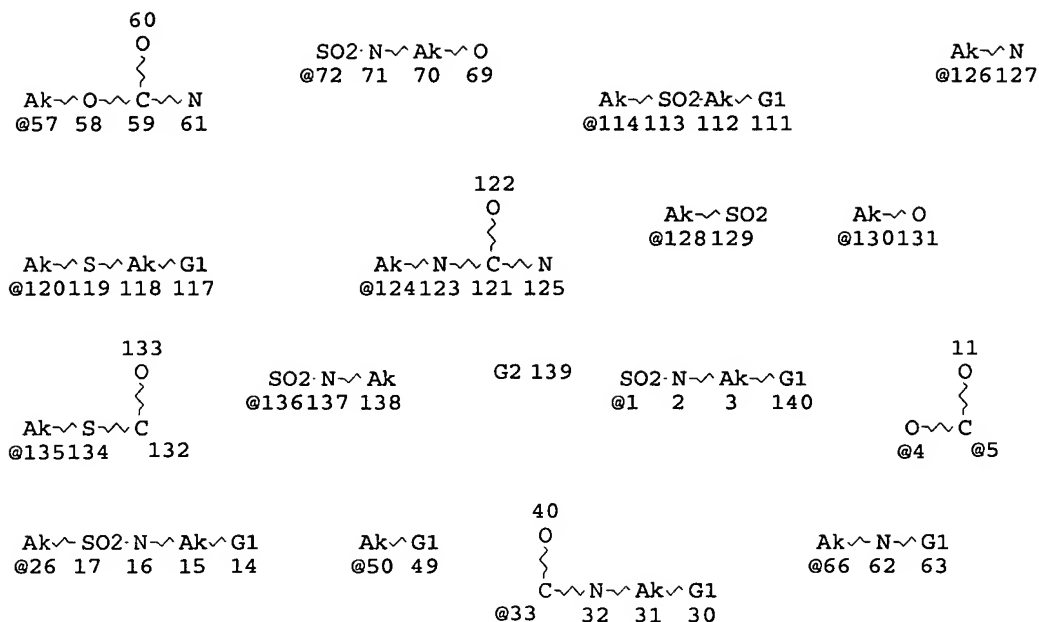
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 5

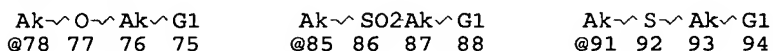
## STEREO ATTRIBUTES: NONE

L8 ( 29911)SEA FILE=REGISTRY SSS FUL L7 NOT L6

L9 STR



Page 1-A



Page 2-A

VAR G1=4/5

VAR G2=57/72/114/126/120/124/128/130/135/136/1/26/50/33/66/78/85/91

NODE ATTRIBUTES:

```

CONNECT IS E1 RC AT 11
CONNECT IS E1 RC AT 40
CONNECT IS E1 RC AT 60
CONNECT IS E2 RC AT 92
CONNECT IS E2 RC AT 119
CONNECT IS E1 RC AT 122
CONNECT IS E1 RC AT 133
CONNECT IS E2 RC AT 134
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

```

GRAPH ATTRIBUTES:

```

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 70

```

STEREO ATTRIBUTES: NONE

```

L10      26835 SEA FILE=REGISTRY SUB=L8 SSS FUL L9
L11      SCR 1918 OR 1838
L12      STR

```

```

C~C      F~Ak~CF3
1 2      3 4 5

```

NODE ATTRIBUTES:

```

DEFAULT MLEVEL IS ATOM
GGCAT IS LIN SAT AT 4
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M3-X7 C AT 4

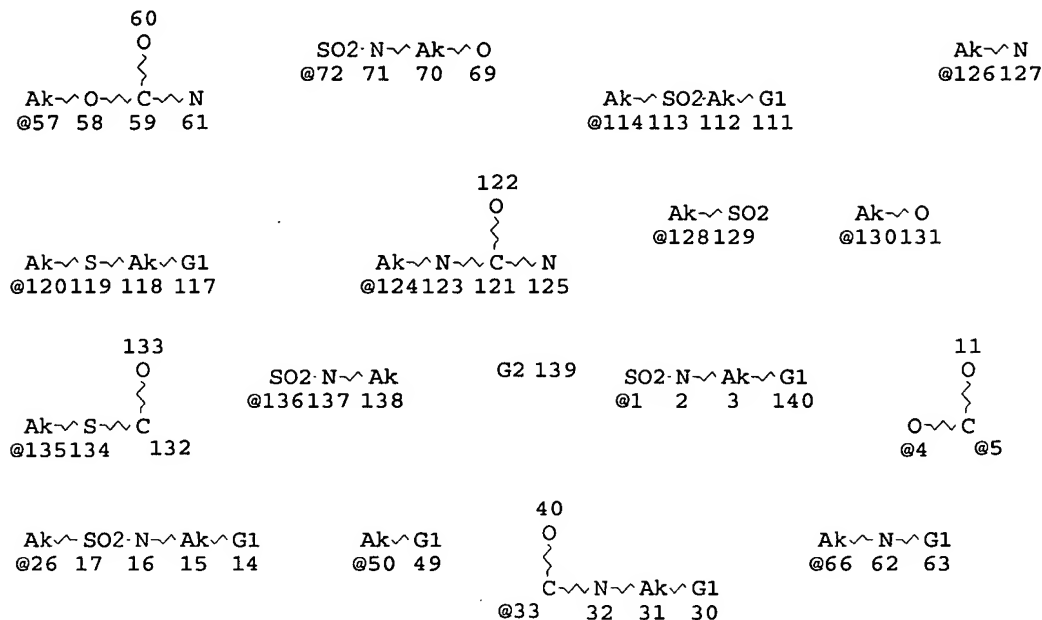
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GRAPH ATTRIBUTES:

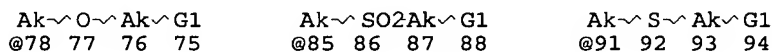
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L13 ( 29911)SEA FILE=REGISTRY SSS FUL L12 NOT L11  
L14 STR



Page 1-A



Page 2-A

VAR G1=4/5

VAR G2=57/72/114/126/120/124/128/130/135/136/1/26/50/33/66/78/85/91

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 11  
CONNECT IS E1 RC AT 40  
CONNECT IS E1 RC AT 60  
CONNECT IS E2 RC AT 92  
CONNECT IS E2 RC AT 119  
CONNECT IS E1 RC AT 122  
CONNECT IS E1 RC AT 133  
CONNECT IS E2 RC AT 134

DEFAULT MLEVEL IS ATOM

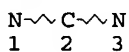
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 70

STEREO ATTRIBUTES: NONE

L15 ( 26835)SEA FILE=REGISTRY SUB=L13 SSS FUL L14  
L16 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

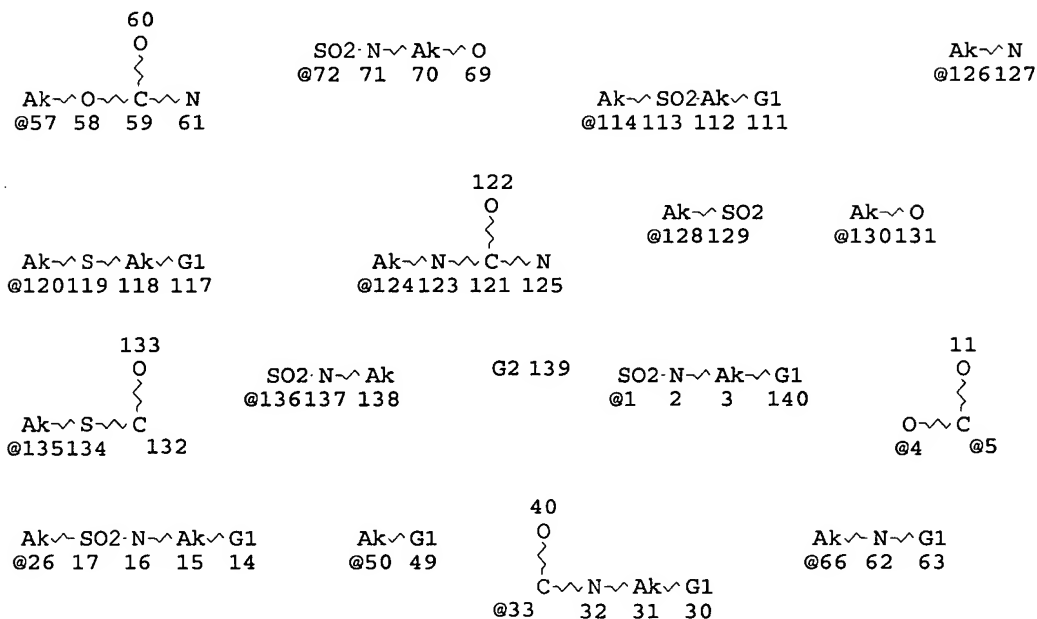
GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE  
L17 715 SEA FILE=REGISTRY SUB=L15 SSS FUL L16  
L18 SCR 1918 OR 1838  
L19 STR  
C~C F~Ak~CF3  
1 2 3 4 5

NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
GGCAT IS LIN SAT AT 4  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M3-X7 C AT 4

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE  
L20 ( 29911)SEA FILE=REGISTRY SSS FUL L19 NOT L18  
L21 STR



Page 1-A

Ak~O~Ak~G1 Ak~SO2Ak~G1 Ak~S~Ak~G1  
@78 77 76 75 @85 86 87 88 @91 92 93 94

Page 2-A

VAR G1=4/5

VAR G2=57/72/114/126/120/124/128/130/135/136/1/26/50/33/66/78/85/91

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 11  
CONNECT IS E1 RC AT 40  
CONNECT IS E1 RC AT 60  
CONNECT IS E2 RC AT 92  
CONNECT IS E2 RC AT 119

CONNECT IS E1 RC AT 122  
 CONNECT IS E1 RC AT 133  
 CONNECT IS E2 RC AT 134  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 70

STEREO ATTRIBUTES: NONE  
 L22 ( 26835)SEA FILE=REGISTRY SUB=L20 SSS FUL L21  
 L23 STR

N≡C≡O  
 1 2 3

NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE  
 L24 4147 SEA FILE=REGISTRY SUB=L22 SSS FUL L23  
 L26 2 SEA FILE=REGISTRY ABB=ON PLU=ON L10 AND L2  
 L34 STR

C=C~A~Ak  
 1 2 3 4

NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS M12-X100 C AT 4

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE  
 L36 174 SEA FILE=REGISTRY SUB=L10 SSS FUL L34  
 L37 20 SEA FILE=REGISTRY ABB=ON PLU=ON L36 AND 2/NC  
 L38 1024 SEA FILE=REGISTRY ABB=ON PLU=ON ?URETHAN?/CNS  
 L39 1028 SEA FILE=REGISTRY ABB=ON PLU=ON ?UREYL?/CNS  
 L40 53690 SEA FILE=REGISTRY ABB=ON PLU=ON ?GUANIDIN?/CNS  
 L41 674 SEA FILE=REGISTRY ABB=ON PLU=ON ?CARBODIIMID?/CNS  
 L43 5 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND (L38 OR L39  
 OR L40 OR L41)  
 L45 1 SEA FILE=REGISTRY ABB=ON PLU=ON 104559-01-5/RN  
 L46 1 SEA FILE=REGISTRY ABB=ON PLU=ON 852161-27-4/RN  
 L47 1 SEA FILE=REGISTRY ABB=ON PLU=ON 112-92-5/RN  
 L48 1 SEA FILE=REGISTRY ABB=ON PLU=ON 53200-31-0/RN  
 L49 1 SEA FILE=REGISTRY ABB=ON PLU=ON 306997-46-6/RN  
 L50 1 SEA FILE=REGISTRY ABB=ON PLU=ON 112-96-9/RN  
 L54 23393 SEA FILE=HCAPLUS ABB=ON PLU=ON L5  
 L55 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L26  
 L56 18293 SEA FILE=HCAPLUS ABB=ON PLU=ON L10  
 L57 238 SEA FILE=HCAPLUS ABB=ON PLU=ON L17  
 L58 1833 SEA FILE=HCAPLUS ABB=ON PLU=ON L24  
 L59 413 SEA FILE=REGISTRY ABB=ON PLU=ON L17 AND L24  
 L60 121 SEA FILE=HCAPLUS ABB=ON PLU=ON L59  
 L61 165 SEA FILE=HCAPLUS ABB=ON PLU=ON L45/D OR L45/DP  
 L62 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L46/D OR L46/DP

L63 509 SEA FILE=HCAPLUS ABB=ON PLU=ON L47/D OR L47/DP  
 L64 77 SEA FILE=HCAPLUS ABB=ON PLU=ON L48/D OR L48/DP  
 L65 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L49/D OR L49/DP  
 L66 299 SEA FILE=HCAPLUS ABB=ON PLU=ON L50/D OR L50/DP  
 L67 90 SEA FILE=HCAPLUS ABB=ON PLU=ON L36  
 L68 140 SEA FILE=HCAPLUS ABB=ON PLU=ON L57 AND L58  
 L70 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L37  
 L71 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L43  
 L73 64 SEA FILE=HCAPLUS ABB=ON PLU=ON L54 AND ((L61 OR L62  
 OR L63 OR L64 OR L65 OR L66))  
 L74 56395 SEA FILE=HCAPLUS ABB=ON PLU=ON L38  
 L75 3185 SEA FILE=HCAPLUS ABB=ON PLU=ON L39  
 L76 144447 SEA FILE=HCAPLUS ABB=ON PLU=ON L40  
 L77 10203 SEA FILE=HCAPLUS ABB=ON PLU=ON L41  
 L78 387 SEA FILE=HCAPLUS ABB=ON PLU=ON L54 AND ((L74 OR L75  
 OR L76 OR L77) OR ?UREYLEN? OR ?URETHANYLBIURETYL? OR  
 ?URETHAN?(A)?BIURIETYL? OR ?GUANIDIN? OR ?CARBODIIMID?)  
  
 L80 113402 SEA FILE=HCAPLUS ABB=ON PLU=ON FIBER?/SC,SX  
 L82 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND ((L74 OR L75  
 OR L76 OR L77) OR ?UREYLEN? OR ?URETHANYLBIURETYL? OR  
 ?URETHAN?(A)?BIURIETYL? OR ?GUANIDIN? OR ?CARBODIIMID?)  
  
 L85 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 AND L57  
 L86 140 SEA FILE=HCAPLUS ABB=ON PLU=ON L60 OR L68  
 L87 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L86 AND L80  
 L88 270766 SEA FILE=HCAPLUS ABB=ON PLU=ON COAT?/SC,SX  
 L89 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L86 AND L88  
 L92 7724 SEA FILE=HCAPLUS ABB=ON PLU=ON COATINGS/CT  
 L93 125107 SEA FILE=HCAPLUS ABB=ON PLU=ON COATING PROCESS/CT  
 L94 271789 SEA FILE=HCAPLUS ABB=ON PLU=ON COATING MATERIALS/CT  
 L95 2026 SEA FILE=HCAPLUS ABB=ON PLU=ON L56 AND ((L92 OR L93  
 OR L94))  
 L96 21863 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTISOIL? OR (ANTI OR  
 REPEL? OR PREVENT? STOP?) (A) (SOIL? OR DIRT? OR DUST?  
 OR WATER? OR OIL?)  
 L97 1931 SEA FILE=HCAPLUS ABB=ON PLU=ON L96 AND L56  
 L98 707 SEA FILE=HCAPLUS ABB=ON PLU=ON L95 AND L97  
 L99 3541 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTISOIL? OR ANTI(A)SO  
 IL?  
 L103 301171 SEA FILE=HCAPLUS ABB=ON PLU=ON TEXTIL?/SC,SX  
 L104 99 SEA FILE=HCAPLUS ABB=ON PLU=ON L56 AND L88 AND (L103  
 OR L80)  
 L105 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND L88 AND (L103  
 OR L80)  
 L106 QUE ABB=ON PLU=ON FABRIC? OR TEXTILE? OR CLOTH? OR G  
 ARMENT? OR NAPER OR DRAPER OR WEAV? OR WOVE? OR WEFT? O  
 R WEB? OR SPIN? OR SPUN? OR FIBER? OR FIBRE# OR NET OR  
 NETTING?  
 L107 147 SEA FILE=HCAPLUS ABB=ON PLU=ON L106 AND L98  
 L108 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L78 AND L107  
 L109 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L73 AND L107  
 L110 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND L107  
 L111 96 SEA FILE=HCAPLUS ABB=ON PLU=ON L104 AND L106  
 L113 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L111 AND L99  
 L114 46 SEA FILE=HCAPLUS ABB=ON PLU=ON L55 OR L70 OR L71 OR  
 L82 OR L85 OR L87 OR L89 OR L105 OR (L108 OR L109 OR  
 L110)  
 L116 57 SEA FILE=HCAPLUS ABB=ON PLU=ON L114 OR L113  
 L117 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L116 NOT L114

=> d l117 1-11 ibib abs hitstr hitind

L117 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:271885 HCAPLUS

DOCUMENT NUMBER: 138:305497  
 TITLE: Water absorption oil-repellent  
 antisoil finishing composition and  
 finishing fiber products thereof  
 INVENTOR(S): Tsujimoto, Hiroshi; Miura, Hiroyuki; Sakai,  
 Yoshiaki; Nakaya, Shoji; Kito, Kiyoshi  
 PATENT ASSIGNEE(S): Shikibo, Ltd., Japan; Takamatsu Yushi K. K.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003105319	A2	20030409	JP 2001-301604	2001 0928

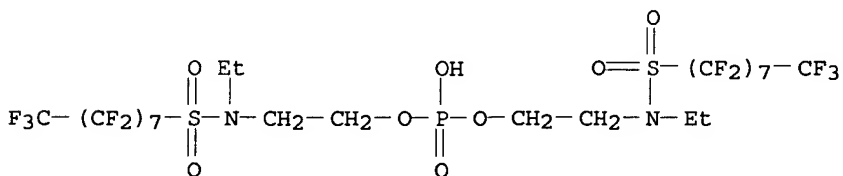
PRIORITY APPLN. INFO.: JP 2001-301604  
 2001  
 0928

AB The fiber finishing composition, useful for spray containers, comprises (A) 15-90 wt% of copolymers prepared by polymerizing perfluoro alkyl group-containing acrylates and alkoxyated acrylates in the presence of  $(R_1F-A-O)mP:O(OH)n(O-)^{3-m-n}(Y^+)^{3-m-n}$ , wherein  $R_1F$  is a perfluoroalkyl group,  $A$  = divalent organic group,  $m = 1$  or  $2$ ,  $n = 0$  or  $1$ ,  $Y^+$  is a counter ion, and (B) 10-85 wt% of terpolymers of perfluoroalkyl group-containing acrylates, alkoxyated acrylates, and nitrogen-containing acrylates. Thus, a composition was prepared by mixing 2-acryloylamino-2-methyl-1-propane sulfonic acid ammonium salt-NK Ester M 230G graft copolymer containing bis(2-perfluorooctylethyl) phosphate ammonium salt and acrylonitrile-nonadecafluoroundecyl methacrylate-NK Ester M 230G graft copolymer.

IT 30381-98-7P, Bis(2-perfluorooctylsulfonyl-N-ethylaminoethyl) phosphate ammonium salt 146837-02-7P, 2-Perfluorooctylsulfonyl-N-ethylaminoethyl phosphate ammonium salt  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 PREP (Preparation); USES (Uses)  
 (production of water absorption oil-repellent antisoil finishing composition for finishing fiber products)

RN 30381-98-7 HCAPLUS

CN 1-Octanesulfonamide, N,N'-[phosphinobis(oxy-2,1-ethanediyl)]bis[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, ammonium salt (9CI) (CA INDEX NAME)



RN 146837-02-7 HCAPLUS

CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-, phosphate (ester), ammonium

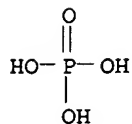


salt (9CI) (CA INDEX NAME)

CM 1

CRN 7664-38-2

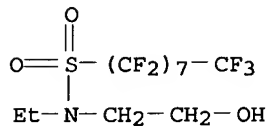
CMF H3 O4 P



CM 2

CRN 1691-99-2

CMF C12 H10 F17 N O3 S



IT 507273-20-3P, Acrylonitrile-nonadecafluoroundecyl methacrylate-NK Ester M 230G graft copolymer 507273-21-4P, N-Methylolacrylamide-nonadecafluoroundecyl methacrylate-NK Ester M 90G graft copolymer  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (production of water absorption oil-repellent **antisoil** finishing composition for finishing **fiber** products)

RN 507273-20-3 HCAPLUS

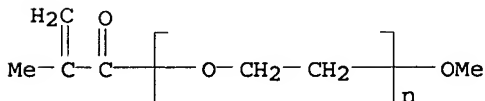
CN 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoroundecyl ester, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl) and 2-propenenitrile, graft (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

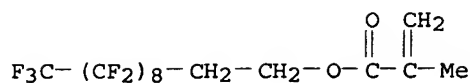
CCI PMS



CM 2

CRN 15899-09-9

CMF C15 H9 F19 O2



CM 3

CRN 107-13-1

CMF C3 H3 N



RN 507273-21-4 HCAPLUS

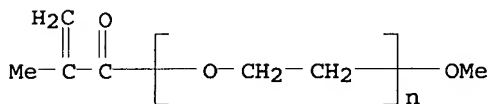
CN 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoroundecyl ester, polymer with N-(hydroxymethyl)-2-propenamide and  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl), graft (9CI)  
(CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

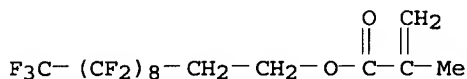
CCI PMS



CM 2

CRN 15899-09-9

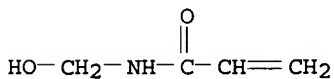
CMF C15 H9 F19 O2



CM 3

CRN 924-42-5

CMF C4 H7 N O2



IT 93776-20-6P, Bis(2-perfluorooctylethyl) phosphate ammonium salt 362049-20-5P, 2-Perfluorooctylethyl phosphate ammonium salt

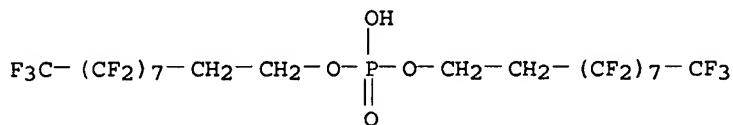
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

PREP (Preparation); USES (Uses)

(starting materials; production of water absorption oil-repellent

**antisoil finishing composition for finishing fiber products)**

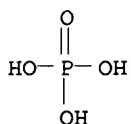
RN 93776-20-6 HCAPLUS  
 CN 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-,  
 hydrogen phosphate, ammonium salt (9CI) (CA INDEX NAME)



RN 362049-20-5 HCAPLUS  
 CN 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-,  
 phosphate, ammonium salt (9CI) (CA INDEX NAME)

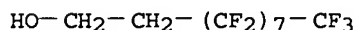
CM 1

CRN 7664-38-2  
 CMF H3 O4 P



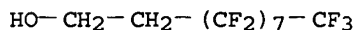
CM 2

CRN 678-39-7  
 CMF C10 H5 F17 O

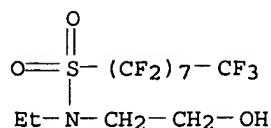


IT 678-39-7, 2-Perfluorooctylethyl alcohol 1691-99-2  
 , 2-Perfluorooctylsulfonyl-N-ethylaminoethyl alcohol  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (starting materials; production of water absorption oil-repellent  
**antisoil finishing composition for finishing fiber products)**

RN 678-39-7 HCAPLUS  
 CN 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-  
 (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 1691-99-2 HCAPLUS  
 CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-  
 heptadecafluoro-N-(2-hydroxyethyl)- (6CI, 7CI, 8CI, 9CI) (CA  
 INDEX NAME)



- IC ICM C09K003-00  
ICS C08L033-14; C08L033-16; C08L033-26; C08L041-00; D06M013-282;  
D06M015-277
- CC 40-9 (Textiles and Fibers)  
Section cross-reference(s): 42
- ST water absorption oil repellent **antisoil** finishing compn  
**fiber**
- IT Coating materials  
(**antisoiling**, water-resistant; production of water  
absorption oil-repellent **antisoil** finishing composition  
for finishing **fiber** products)
- IT Oil-resistant materials  
**Textiles**  
(production of water absorption oil-repellent **antisoil**  
finishing composition for finishing **fiber** products)
- IT Fluoropolymers, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
PRP (Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(production of water absorption oil-repellent **antisoil**  
finishing composition for finishing **fiber** products)
- IT Containers  
(spray; production of water absorption oil-repellent  
**antisoil** finishing composition for finishing **fiber**  
products)
- IT 2997-92-4, 2,2'-Azobis(2-amidinopropane) dihydrochloride  
RL: CAT (Catalyst use); USES (Uses)  
(production of water absorption oil-repellent **antisoil**  
finishing composition for finishing **fiber** products)
- IT 30381-98-7P, Bis(2-perfluorooctylsulfonyl-N-  
ethylaminoethyl) phosphate ammonium salt 146837-02-7P,  
2-Perfluorooctylsulfonyl-N-ethylaminoethyl phosphate ammonium salt  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(production of water absorption oil-repellent **antisoil**  
finishing composition for finishing **fiber** products)
- IT 507234-19-7P, 2-Acryloylamino-2-methyl-1-propane sulfonic acid  
ammonium salt-NK Ester M 230G graft copolymer 507234-20-0P  
507273-20-3P, Acrylonitrile-nonadecafluoroundecyl  
methacrylate-NK Ester M 230G graft copolymer 507273-21-4P  
, N-Methylolacrylamide-nonadecafluoroundecyl methacrylate-NK Ester  
M 90G graft copolymer 507475-82-3P 507475-84-5P, Ethylene  
oxide-vinylsulfonic acid sodium salt graft copolymer methyl ether  
507476-07-5P, Acrylonitrile-ethylene oxide-nonadecafluoroundecyl  
methacrylate graft copolymer methyl ether 507476-09-7P,  
N-Methylolacrylamide-ethylene oxide-nonadecafluoroundecyl  
methacrylate graft copolymer methyl ether  
RL: IMF (Industrial manufacture); POF (Polymer in formulation);  
PRP (Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(production of water absorption oil-repellent **antisoil**  
finishing composition for finishing **fiber** products)
- IT 111-88-6, n-Octylmercaptan  
RL: MOA (Modifier or additive use); USES (Uses)  
(production of water absorption oil-repellent **antisoil**  
finishing composition for finishing **fiber** products)
- IT 7664-41-7, Ammonia, reactions  
RL: RGT (Reagent); RACT (Reactant or reagent)

(production of water absorption oil-repellent **antisoil** finishing composition for finishing **fiber** products)

IT 67-63-0, Isopropyl alcohol, uses 7580-85-0, Ethylene glycol mono-tert-butyl ether  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (solvent; production of water absorption oil-repellent **antisoil** finishing composition for finishing **fiber** products)

IT 93776-20-6P, Bis(2-perfluorooctylethyl) phosphate ammonium salt 362049-20-5P, 2-Perfluorooctylethyl phosphate ammonium salt  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 PREP (Preparation); USES (Uses)  
 (starting materials; production of water absorption oil-repellent **antisoil** finishing composition for finishing **fiber** products)

IT 678-39-7, 2-Perfluorooctylethyl alcohol 1314-56-3, Phosphoric acid anhydride, reactions 1691-99-2, 2-Perfluorooctylsulfonyl-N-ethylaminoethyl alcohol  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (starting materials; production of water absorption oil-repellent **antisoil** finishing composition for finishing **fiber** products)

L117 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:173549 HCAPLUS

DOCUMENT NUMBER: 138:225461

TITLE: Aqueous fluorochemical polymer composition for water and oil repellent treatment of masonry and well bores

INVENTOR(S): Fan, Wayne W.; Martin, Steven J.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003018508	A1	20030306	WO 2002-US15937	2002 0516
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003083448	A1	20030501	US 2001-938188	2001 0823
US 6689854	B2	20040210		
CA 2459494	AA	20030306	CA 2002-2459494	2002 0516
EP 1423347	A1	20040602	EP 2002-737011	2002

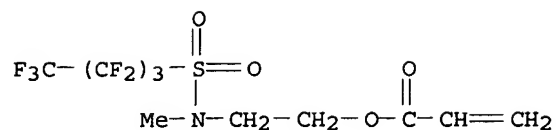
0516  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
JP 2005501138 T2 20050113 JP 2003-523174  
2002  
0516  
US 2004186254 A1 20040923 US 2004-766127  
2004  
0128  
PRIORITY APPLN. INFO.: US 2001-938188 A  
2001  
0823  
WO 2002-US15937 W  
2002  
0516

AB The present invention provides a water-soluble and shelf-stable aqueous fluorochem. polymeric treatment useful to treat porous substrates to render them repellent to water- and oil-based stains. The treatment comprises a water-soluble or dispersible fluorochem. polymer of formula:  $-[CR(COXR1Rf)CH2]a[CR(CO(OR2CO)mO-M+)CH2]b[CR(COXR3Si(OR4)3)CH2]c[CRYCH2]d-$ , in which Rf = C3-6 fluoroalkyl; R1 = hydrocarbyl; X = O, N, or S; R2 = short-chain alkylene; m = 0 or 1; M+ = H or mono- or multivalent cation; R3 = hydrocarbyl; R4 = H, Me, Et, or Bu; Y = a non-hydrophilic group; a, b, and c are  $\geq 1$ , d  $\geq 0$ , and containing only carbon atoms in the backbone, with a plurality of each of the following groups pendent from the backbone: (a) fluoroaliph. groups, (b) carboxyl-containing groups, (c) silyl groups and optionally (d) other non-hydrophilic groups. Because the water-soluble polymeric treatment of the present invention, and the shelf-stable aqueous solns. thereof, can be applied to porous substrates in aqueous solution, they eliminate the need for environmentally harmful and toxic co-solvents. Particularly when applied to masonry and other siliceous materials, these polymeric treatments can react with the substrate onto which they are applied to form an invisible and water-insol. coating that repels both water and oil, resists soiling, and that cannot be easily washed from the surface of the substrate. Substrates treated with these polymers are thereby durably protected from rain and normal weathering.

IT 500569-53-9P 500569-54-0P 500569-55-1P  
500569-56-2P 500569-57-3P 500569-58-4P  
500569-59-5P 500569-60-8P 500569-61-9P  
500569-62-0P 500569-63-1P 500569-64-2P  
500569-65-3P 500569-66-4P 500569-67-5P  
RL: NUU (Other use, unclassified); SPN (Synthetic preparation);  
TEM (Technical or engineered material use); PREP (Preparation);  
USES (Uses)  
(aqueous treating composition; aqueous fluorochem. polymer composition for water and oil repellent treatment of masonry and well bores and porous materials)

RN 500569-53-9 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

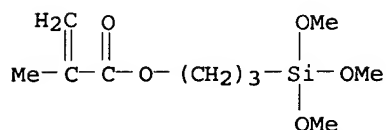
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CRN 67584-55-8  
CMF C10 H10 F9 N O4 S



CM 2

CRN 2530-85-0

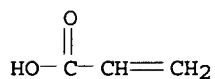
CMF C10 H20 O5 Si



CM 3

CRN 79-10-7

CMF C3 H4 O2



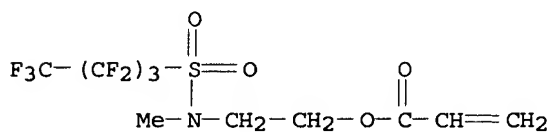
RN 500569-54-0 HCAPLUS

CM 2-Propenoic acid, 2-methyl-, polymer with 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 67584-55-8

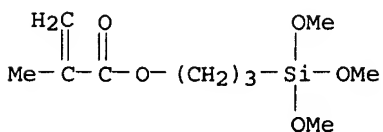
CMF C10 H10 F9 N O4 S



CM 2

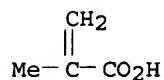
CRN 2530-85-0

CMF C10 H20 O5 Si



CM 3

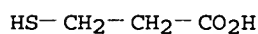
CRN 79-41-4  
CMF C4 H6 O2



RN 500569-55-1 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,  
telomer with 3-mercaptopropanoic acid, 2-  
[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and  
2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 107-96-0  
CMF C3 H6 O2 S

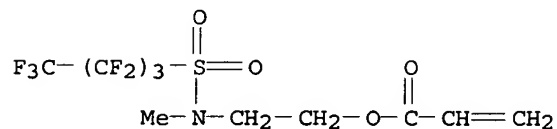


CM 2

CRN 500569-53-9  
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CCI PMS

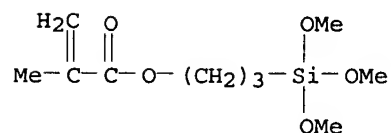
CM 3

CRN 67584-55-8  
CMF C10 H10 F9 N O4 S



CM 4

CRN 2530-85-0  
CMF C10 H20 O5 Si

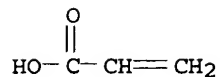


CM 5

CRN 79-10-7



CMF C3 H4 O2



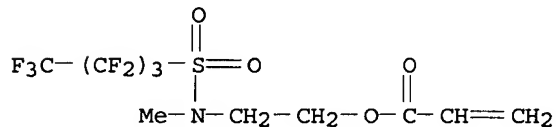
RN 500569-56-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,  
polymer with butyl 2-propenoate, 2-[methyl[(nonafluorobutyl)sulfon  
yl]amino]ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX  
NAME)

CM 1

CRN 67584-55-8

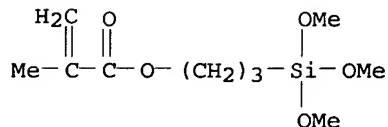
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CM 2

CRN 2530-85-0

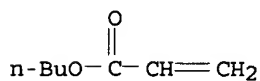
CMF C10 H20 O5 Si



CM 3

CRN 141-32-2

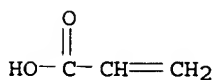
CMF C7 H12 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2

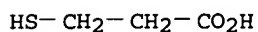


RN 500569-57-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,  
telomer with butyl 2-propenoate, 3-mercaptopropanoic acid,  
2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and  
2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 107-96-0  
CMF C3 H6 O2 S

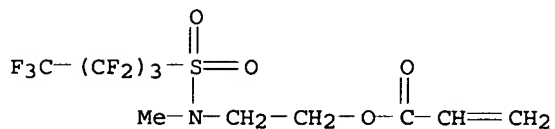


CM 2

CRN 500569-56-2  
CMF (C10 H20 O5 Si . C10 H10 F9 N O4 S . C7 H12 O2 . C3 H4 O2)x  
CCI PMS

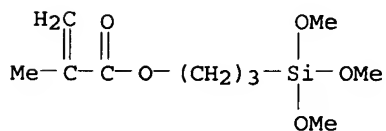
CM 3

CRN 67584-55-8  
CMF C10 H10 F9 N O4 S



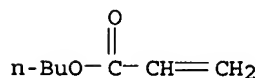
CM 4

CRN 2530-85-0  
CMF C10 H20 O5 Si



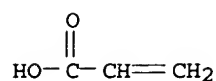
CM 5

CRN 141-32-2  
CMF C7 H12 O2



CM 6

CRN 79-10-7  
CMF C3 H4 O2



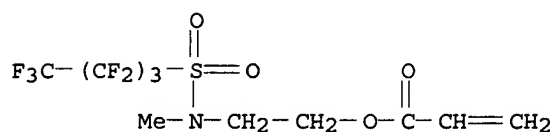
RN 500569-58-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,  
2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and  
3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX  
NAME)

CM 1

CRN 67584-55-8

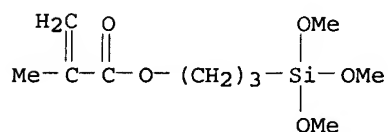
CMF C10 H10 F9 N O4 S



CM 2

CRN 2530-85-0

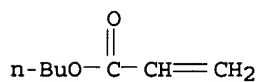
CMF C10 H20 O5 Si



CM 3

CRN 141-32-2

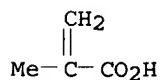
CMF C7 H12 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



RN 500569-59-5 HCAPLUS

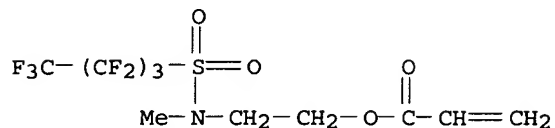
CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,  
polymer with dodecyl 2-propenoate, 2-[methyl[(nonafluorobutyl)sulf

onyl]amino]ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 67584-55-8

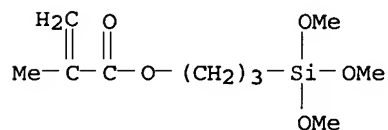
CMF C10 H10 F9 N O4 S



CM 2

CRN 2530-85-0

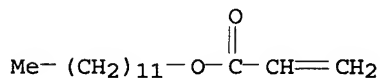
CMF C10 H20 O5 Si



CM 3

CRN 2156-97-0

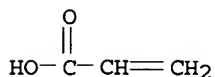
CMF C15 H28 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



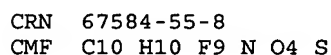
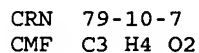
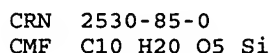
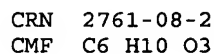
RN 500569-60-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with 3-hydroxypropyl 2-propenoate, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

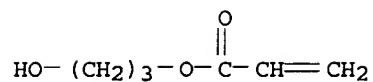
CM 1

CRN 67584-55-8

CMF C10 H10 F9 N O4 S

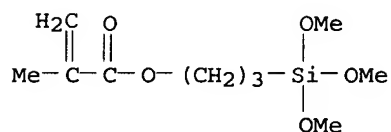


CRN 2761-08-2  
CMF C6 H10 O3



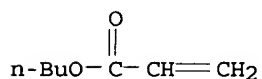
CM 3

CRN 2530-85-0  
CMF C10 H20 O5 Si



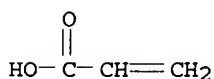
CM 4

CRN 141-32-2  
CMF C7 H12 O2



CM 5

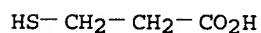
CRN 79-10-7  
CMF C3 H4 O2



RN	500569-62-0	HCAPLUS
CN	2-Propenoic acid, 2-methyl-, telomer with 3-mercaptopropanoic acid, 2-[methyl((nonafluorobutyl)sulfonyl)amino]ethyl 2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)	

CM 1

CRN 107-96-0  
CMF C3 H6 O2 S

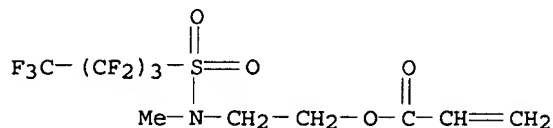


CM 2

CRN 500569-54-0  
 CMF (C10 H20 O5 Si . C10 H10 F9 N O4 S . C4 H6 O2)x  
 CCI PMS

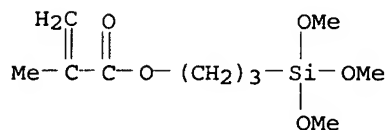
CM 3

CRN 67584-55-8  
 CMF C10 H10 F9 N O4 S



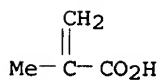
CM 4

CRN 2530-85-0  
 CMF C10 H20 O5 Si



CM 5

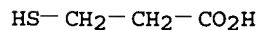
CRN 79-41-4  
 CMF C4 H6 O2



RN 500569-63-1 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, telomer with butyl 2-propenoate,  
 3-mercaptopropenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amin  
 o]ethyl 2-propenoate and 3-(trimethoxysilyl)propyl  
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 107-96-0  
 CMF C3 H6 O2 S

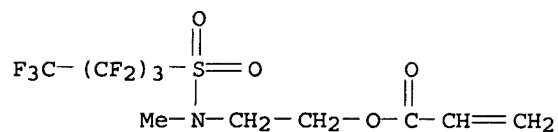


CM 2

CRN 500569-58-4  
 CMF (C10 H20 O5 Si . C10 H10 F9 N O4 S . C7 H12 O2 . C4 H6 O2)x  
 CCI PMS

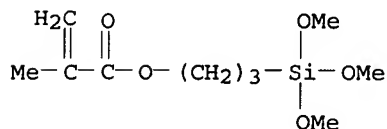
CM 3

CRN 67584-55-8  
CMF C10 H10 F9 N O4 S



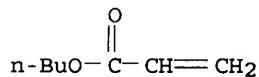
CM 4

CRN 2530-85-0  
CMF C10 H20 O5 Si



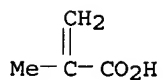
CM 5

CRN 141-32-2  
CMF C7 H12 O2



CM 6

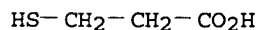
CRN 79-41-4  
CMF C4 H6 O2



RN 500569-64-2 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,  
telomer with dodecyl 2-propenoate, 3-mercaptopropanoic acid,  
2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and  
2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 107-96-0  
CMF C3 H6 O2 S





CM 2

CRN 500569-59-5

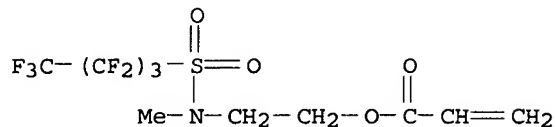
CMF (C15 H28 O2 . C10 H20 O5 Si . C10 H10 F9 N O4 S . C3 H4 O2)x

CCI PMS

CM 3

CRN 67584-55-8

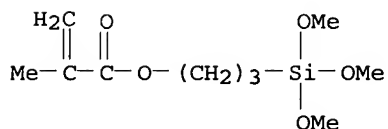
CMF C10 H10 F9 N O4 S



CM 4

CRN 2530-85-0

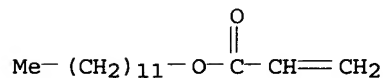
CMF C10 H20 O5 Si



CM 5

CRN 2156-97-0

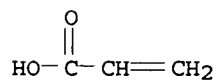
CMF C15 H28 O2



CM 6

CRN 79-10-7

CMF C3 H4 O2



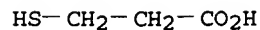
RN 500569-65-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,  
telomer with 3-hydroxypropyl 2-propenoate, 3-mercaptopropanoic  
acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate  
and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 107-96-0

CMF C3 H6 O2 S



CM 2

CRN 500569-60-8

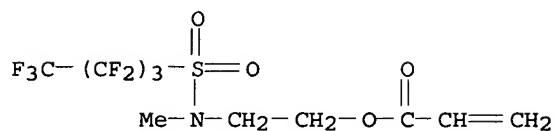
CMF (C10 H20 O5 Si . C10 H10 F9 N O4 S . C6 H10 O3 . C3 H4 O2)x

CCI PMS

CM 3

CRN 67584-55-8

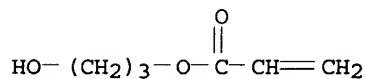
CMF C10 H10 F9 N O4 S



CM 4

CRN 2761-08-2

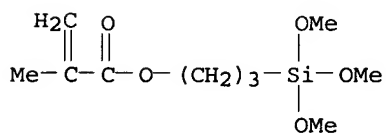
CMF C6 H10 O3



CM 5

CRN 2530-85-0

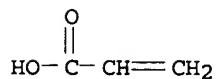
CMF C10 H20 O5 Si



CM 6

CRN 79-10-7

CMF C3 H4 O2



RN 500569-66-4 HCAPLUS

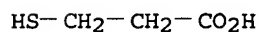
CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,

telomer with butyl 2-propenoate, 3-hydroxypropyl 2-propenoate,  
3-mercaptopropanoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amin  
o]ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 107-96-0

CMF C3 H6 O2 S



CM 2

CRN 500569-61-9

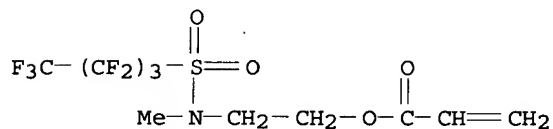
CMF (C10 H20 O5 Si . C10 H10 F9 N O4 S . C7 H12 O2 . C6 H10 O3 .  
C3 H4 O2)x

CCI PMS

CM 3

CRN 67584-55-8

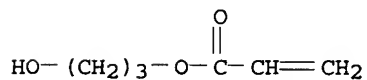
CMF C10 H10 F9 N O4 S



CM 4

CRN 2761-08-2

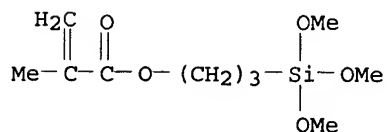
CMF C6 H10 O3



CM 5

CRN 2530-85-0

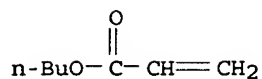
CMF C10 H20 O5 Si



CM 6

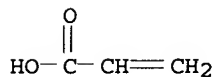
CRN 141-32-2

CMF C7 H12 O2



CM 7

CRN 79-10-7  
CMF C3 H4 O2

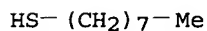


RN 500569-67-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,  
telomer with 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl  
2-propenoate, 1-octanethiol and 2-propenoic acid (9CI) (CA INDEX  
NAME)

CM 1

CRN 111-88-6  
CMF C8 H18 S

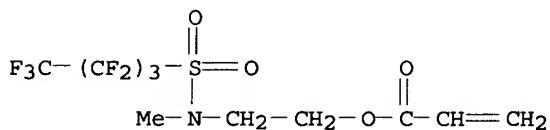


CM 2

CRN 500569-53-9  
CMF (C10 H20 O5 Si . C10 H10 F9 N O4 S . C3 H4 O2)x  
CCI PMS

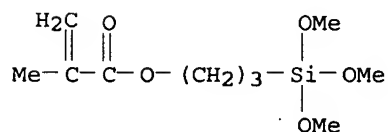
CM 3

CRN 67584-55-8  
CMF C10 H10 F9 N O4 S



CM 4

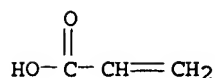
CRN 2530-85-0  
CMF C10 H20 O5 Si



CM 5

CRN 79-10-7

CMF C3 H4 O2



IC ICM C04B041-48  
ICS C08F220-24; E21B043-25

CC 58-4 (Cement, Concrete, and Related Building Materials)  
Section cross-reference(s): 38, 40, 42, 45,  
51, 61

IT Coating materials  
(**antisoiling**, water-resistant, aqueous fluorochem.  
polymers; aqueous fluorochem. polymer composition for water and oil  
repellent treatment of masonry and well bores and porous  
materials)

IT Coating materials  
(**antisoiling**, weather-resistant, aqueous fluorochem.  
polymers; aqueous fluorochem. polymer composition for water and oil  
repellent treatment of masonry and well bores and porous  
materials)

IT Environmental pollution control  
Leather  
Masonry  
Porous materials  
Soilproofing  
**Textiles**  
Tiles  
Wells  
Wettability  
(aqueous fluorochem. polymer composition for water and oil repellent  
treatment of masonry and well bores and porous materials)

IT 500569-53-9P 500569-54-0P 500569-55-1P  
500569-56-2P 500569-57-3P 500569-58-4P  
500569-59-5P 500569-60-8P 500569-61-9P  
500569-62-0P 500569-63-1P 500569-64-2P  
500569-65-3P 500569-66-4P 500569-67-5P  
RL: NUU (Other use, unclassified); SPN (Synthetic preparation);  
TEM (Technical or engineered material use); PREP (Preparation);  
USES (Uses)  
(aqueous treating composition; aqueous fluorochem. polymer composition for water  
and oil repellent treatment of masonry and well bores and  
porous materials)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L117 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2002:944841 HCAPLUS  
DOCUMENT NUMBER: 138:25868  
TITLE: Water- and oilproofing compositions with long  
service life  
INVENTOR(S): Maekawa, Takashige; Shindo, Minako; Tada,  
Masako  
PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 2002356671	A2	20021213	JP 2001-164821	2001 0531
PRIORITY APPLN. INFO.: JP 2001-164821				2001 0531

AB The compns. useful for **fabric** finishing, are obtained from copolymers of (A) monomers bearing polyfluoroalkyl Rf groups rendering microcryst. m.p. of >100° to its homopolymer, e.g. (meth)acrylate C>10 linear fluoroalkyl esters, and (B) monomers bearing polyfluoroalkyl Rf groups which do not have microcryst. m.p. or have a homopolymer microcryst. m.p. of <30°, e.g. (meth)acrylate C>6 linear fluoroalkyl esters. Thus, heating C<sub>6</sub>F<sub>13</sub>C<sub>2</sub>H<sub>4</sub>OCOCH:CH<sub>2</sub> (no homopolymer microcryst. m.p.) 1.45 with C<sub>10</sub>F<sub>21</sub>C<sub>2</sub>H<sub>4</sub>OCOCH:CH<sub>2</sub> (homopolymer microcryst. m.p. 125°) 12.25, stearyl acrylate 20.21, hydroxyethyl acrylate 0.69, polyethylene glycol monomethacrylate 0.69, polyethylene glycol octylphenyl ether 20% aqueous solution 13.78, stearyltriethylammonium chloride 10% aqueous solution 6.89, water 25.83, acetone 17.23, stearyl mercaptan 0.18 and 2,2'-azobis(2-methylpropionamidine) dihydrochloride 0.07 g at 60° for 12 h gave a copolymer solution useful for **fabric** finishing.

IT 478034-20-7P 478034-21-8P 478034-22-9P  
478034-23-0P 478034-24-1P 478034-25-2P  
478034-26-3P 478034-27-4P 478034-28-5P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(manufacture of water- and oilproofing compns. with long service life for **fabric** finishing)

RN 478034-20-7 HCAPLUS

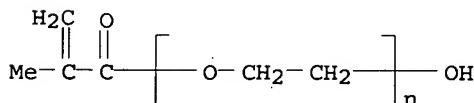
CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester, polymer with 2-hydroxyethyl 2-propenoate, α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl), octadecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 25736-86-1

CMF (C<sub>2</sub> H<sub>4</sub> O)<sub>n</sub> C<sub>4</sub> H<sub>6</sub> O<sub>2</sub>

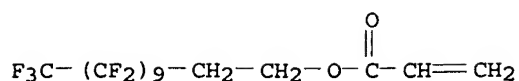
CCI PMS



CM 2

CRN 17741-60-5

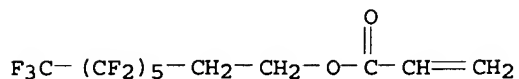
CMF C<sub>15</sub> H<sub>7</sub> F<sub>21</sub> O<sub>2</sub>



CM 3

CRN 17527-29-6

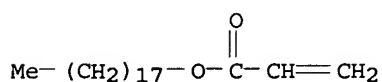
CMF C11 H7 F13 O2



CM 4

CRN 4813-57-4

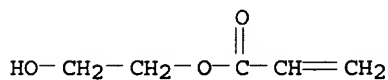
CMF C21 H40 O2



CM 5

CRN 818-61-1

CMF C5 H8 O3



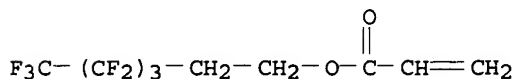
RN 478034-21-8 HCAPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester, polymer with 2-hydroxyethyl 2-propenoate,  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl), 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate and octadecyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 52591-27-2

CMF C9 H7 F9 O2

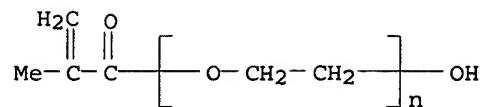


CM 2

CRN 25736-86-1

CMF (C2 H4 O)<sub>n</sub> C4 H6 O2

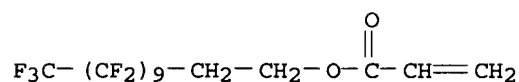
CCI PMS



CM 3

CRN 17741-60-5

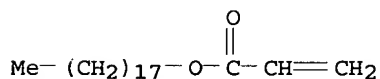
CMF C15 H7 F21 O2



CM 4

CRN 4813-57-4

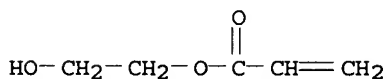
CMF C21 H40 O2



CM 5

CRN 818-61-1

CMF C5 H8 O3



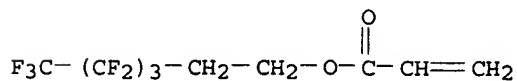
RN 478034-22-9 HCAPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester, polymer with 2-hydroxyethyl 2-propenoate,  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl), 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate, octadecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 52591-27-2

CMF C9 H7 F9 O2

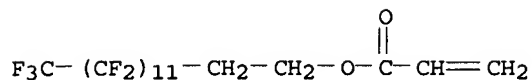




CM 2

CRN 34395-24-9

CMF C17 H7 F25 O2

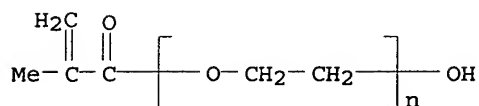


CM 3

CRN 25736-86-1

CMF (C2 H4 O)<sub>n</sub> C4 H6 O2

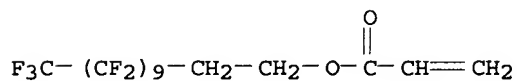
CCI PMS



CM 4

CRN 17741-60-5

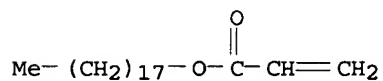
CMF C15 H7 F21 O2



CM 5

CRN 4813-57-4

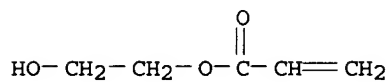
CMF C21 H40 O2



CM 6

CRN 818-61-1

CMF C5 H8 O3



RN 478034-23-0 HCAPLUS

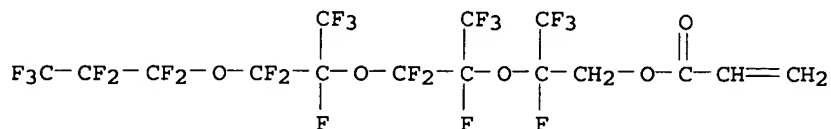
CN 2-Propenoic acid, 2-[1-[[1-[difluoro(heptafluoropropoxy)methyl]-1,2,2,2-tetrafluoroethoxy]difluoromethyl]-1,2,2,2-tetrafluoroethoxy]-2,3,3,3-tetrafluoropropyl ester, polymer with

3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl 2-propenoate, 2-hydroxyethyl 2-propenoate,  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl) and octadecyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 472960-49-9

CMF C15 H5 F23 O5

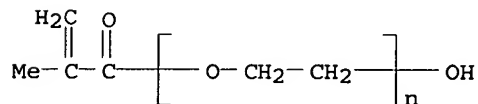


CM 2

CRN 25736-86-1

CMF (C2 H4 O)<sub>n</sub> C4 H6 O2

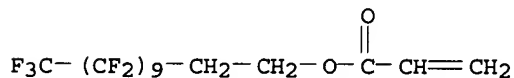
CCI PMS



CM 3

CRN 17741-60-5

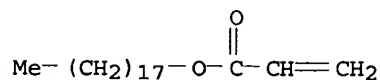
CMF C15 H7 F21 O2



CM 4

CRN 4813-57-4

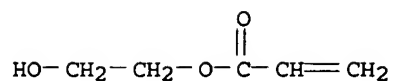
CMF C21 H40 O2



CM 5

CRN 818-61-1

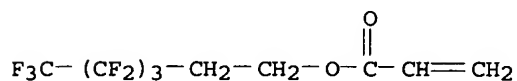
CMF C5 H8 O3



RN 478034-24-1 HCAPLUS  
 CN 2-Butenedioic acid (2Z)-, bis(2-ethylhexyl) ester, polymer with  
 N-(hydroxymethyl)-2-propenamide, 3,3,4,4,5,5,6,6,6-nonafluorohexyl  
 2-propenoate,  $\alpha$ -(9Z)-9-octadecenyl- $\omega$ -hydroxypoly(oxy-  
 1,2-ethanediyl) and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl  
 2-propenoate, graft (9CI) (CA INDEX NAME)

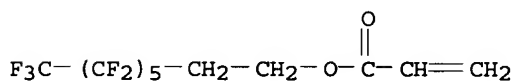
CM 1

CRN 52591-27-2  
 CMF C9 H7 F9 O2



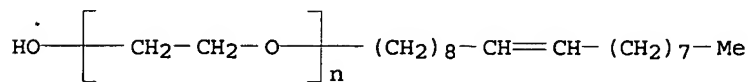
CM 2

CRN 17527-29-6  
 CMF C11 H7 F13 O2



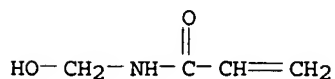
CM 3

CRN 9004-98-2  
 CMF (C2 H4 O)<sub>n</sub> C18 H36 O  
 CCI PMS



CM 4

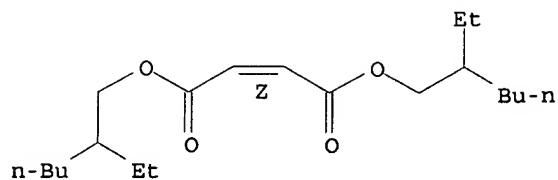
CRN 924-42-5  
 CMF C4 H7 N O2



CM 5

CRN 142-16-5  
 CMF C20 H36 O4

Double bond geometry as shown.



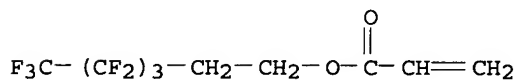
RN 478034-25-2 HCAPLUS

CN 2-Butenedioic acid (2Z)-, bis(2-ethylhexyl) ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl 2-propenoate, N-(hydroxymethyl)-2-propenamide, 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate and  $\alpha$ -(9Z)-9-octadecenyl- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 52591-27-2

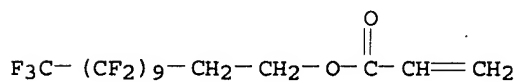
CMF C9 H7 F9 O2



CM 2

CRN 17741-60-5

CMF C15 H7 F21 O2

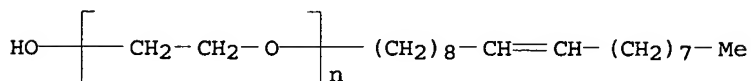


CM 3

CRN 9004-98-2

CMF (C2 H4 O)<sub>n</sub> C18 H36 O

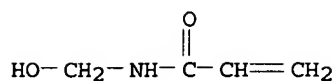
CCI PMS



CM 4

CRN 924-42-5

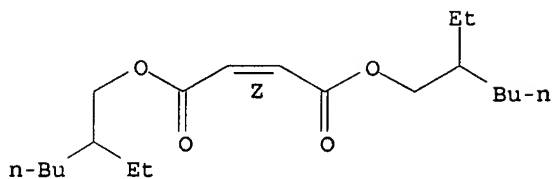
CMF C4 H7 N O2



CM 5

CRN 142-16-5  
CMF C20 H36 O4

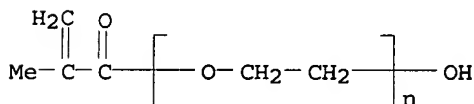
Double bond geometry as shown.



RN 478034-26-3 HCAPLUS  
CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with  
 $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl), octadecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-propenoate, graft (9CI) (CA INDEX NAME)

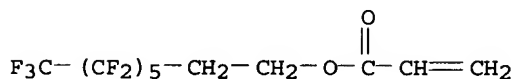
CM 1

CRN 25736-86-1  
CMF (C2 H4 O)<sub>n</sub> C4 H6 O2  
CCI PMS



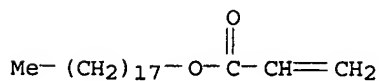
CM 2

CRN 17527-29-6  
CMF C11 H7 F13 O2



CM 3

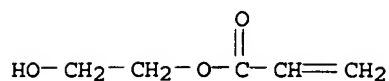
CRN 4813-57-4  
CMF C21 H40 O2



CM 4

CRN 818-61-1

CMF C5 H8 O3



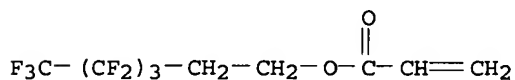
RN 478034-27-4 HCAPLUS

CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with  
 $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl), 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate and octadecyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 52591-27-2

CMF C9 H7 F9 O2

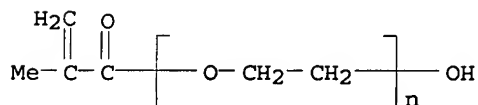


CM 2

CRN 25736-86-1

CMF (C2 H4 O)<sub>n</sub> C4 H6 O2

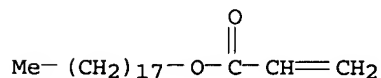
CCI PMS



CM 3

CRN 4813-57-4

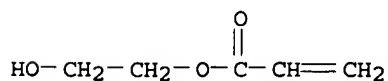
CMF C21 H40 O2



CM 4

CRN 818-61-1

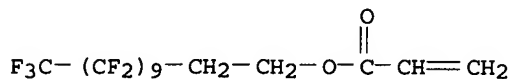
CMF C5 H8 O3



RN 478034-28-5 HCAPLUS  
 CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester, polymer with octadecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-propenoate, graft (9CI) (CA INDEX NAME)

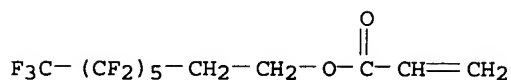
CM 1

CRN 17741-60-5  
 CMF C15 H7 F21 O2



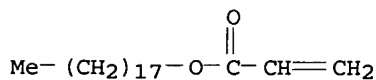
CM 2

CRN 17527-29-6  
 CMF C11 H7 F13 O2



CM 3

CRN 4813-57-4  
 CMF C21 H40 O2



IC ICM C09K003-18  
 ICS C09K003-18; C08F220-24; C09D171-00; C09D201-04; C09K003-00  
 CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 40  
 ST fabric finishing waterproofing oilproofing coating  
 fluoroalkyl acrylate copolymer manuf  
 IT Coating materials  
 (antisoiling; manufacture of water- and oilproofing  
 compns. with long service life for fabric finishing)  
 IT Polyester fibers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (fabrics, treatment of; manufacture of water- and  
 oilproofing compns. with long service life for fabric  
 finishing)  
 IT 478034-20-7P 478034-21-8P 478034-22-9P  
 478034-23-0P 478034-24-1P 478034-25-2P  
 478034-26-3P 478034-27-4P 478034-28-5P  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical  
 or engineered material use); PREP (Preparation); USES (Uses)  
 (manufacture of water- and oilproofing compns. with long service  
 life for fabric finishing)

L117 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2001:661370 HCAPLUS

DOCUMENT NUMBER: 135:212420  
 TITLE: Fluorine compounds and water- and oil-repellant compositions containing them for prevention of soiling of a surface  
 INVENTOR(S): Shindo, Minako; Maekawa, Takashige; Seki, Ryuji; Furuta, Shoji; Oharu, Kazuya  
 PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan  
 SOURCE: PCT Int. Appl., 24 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001064619	A1	20010907	WO 2001-JP1425	2001 0226
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2368575	AA	20010907	CA 2001-2368575	2001 0226
EP 1174417	A1	20020123	EP 2001-906315	2001 0226
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2002060304	A1	20020523	US 2001-976435	2001 1015
US 6860926	B2	20050301		
PRIORITY APPLN. INFO.:			JP 2000-54069	A 2000 0229
			WO 2001-JP1425	W 2001 0226

OTHER SOURCE(S): MARPAT 135:212420

AB The compds. are of perfluorinated group-containing butanedioic acid esters, i.e.,  $Rf1R2OCOCH2CHR1COOR3Rf2o$  ( $Rf1, Rf2$  = independently polyfluoroalkyl having 3 to 22 carbon atoms;  $R1$  = H or C1-10 alkyl; and  $R2, R3$  = independently C1-4 alkyl or the like). Oil- and water-repellent compns. containing the compds. have good precipitation resistance. Thus, heating  $F(CF2)8(CH2)2OH$  (94% purity) 278 with p-toluenesulfonic acid 1.5 and succinic acid 36.5 in PhMe 400 g at 107° for 12 h and working up gave an ester 30 g of which was combined with a perfluoro-C6-16 alkylethyl acrylate 167, stearyl acrylate 46.2, N-methylolacrylamide 5.1, stearyl mercaptan 0.77, polyethylene glycol monooleyl ether 10.3, an acetylenic surfactant 5.1, Nikkol BT 12 (a surfactant) 5.1, tripropylene glycol 130 and water 350, emulsified, mixed with azobis(dimethyleneisobutyramidine) HCl salt 0.5 and vinyl chloride



38.5 g and heated while stirring at 60° for 15 h to give an emulsion containing 38.5% polymer particles with average diameter 0.09 µm. A 2%-solids dilution of the emulsion in water was prepared and used as dry soil repellent for nylon knitted fabric.

IT 357921-70-1P

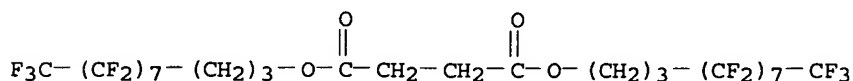
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

PREP (Preparation); USES (Uses)

(fluorine compds. and water- and oil-repellent compns. containing them for prevention of soiling of a surface)

RN 357921-70-1 HCAPLUS

CN Butanedioic acid, bis(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptafluoroundecyl) ester (9CI) (CA INDEX NAME)



IT 261928-47-6P

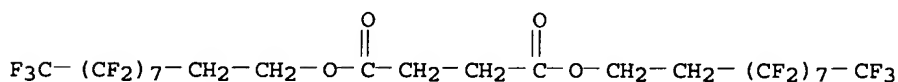
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

PREP (Preparation); USES (Uses)

(oil and water repellent; fluorine compds. and water- and oil-repellent compns. containing them for prevention of soiling of a surface)

RN 261928-47-6 HCAPLUS

CN Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl) ester (9CI) (CA INDEX NAME)



IC ICM C07C069-63

ICS C07C311-24; C09K003-18

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 40

ST fabric soilproofing fluoro chem oil water repellent; succinic acid perfluoroalkylethyl ester oil water repellent; fluoropolymer acrylic soilproofing coating perfluoroalkylethyl ester additive

IT Coating materials

(antisoiling; fluorine compds. and water- and oil-repellent compns. containing them for prevention of soiling of a surface)

IT Textiles

(treatment of; fluorine compds. and water- and oil-repellent compns. containing them for prevention of soiling of a surface)

IT 64-17-5DP, Ethanol, perfluoroalkyl-substituted, esters with succinic dichloride, uses 108-30-5DP, Succinic anhydride, diester with ethanolmethylperfluoroalkylsulfamide 109-83-1DP, N-Methylethanolamine, perfluoroalkylsulfamide, diesters with succinic anhydride 110-73-6DP, N-Ethylethanolamine, perfluoroalkylsulfamide, diesters with succinic anhydride 543-20-4DP, Succinic dichloride, diester with perfluoroalkyl-substituted ethanol 357921-70-1P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

PREP (Preparation); USES (Uses)

(fluorine compds. and water- and oil-repellent compns. containing them for prevention of soiling of a surface)

IT 261928-47-6P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

PREP (Preparation); USES (Uses)

(oil and water repellent; fluorine compds. and water- and

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

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L117 ANSWER 5 OF 11  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:      1998:36017  HCAPLUS
DOCUMENT NUMBER:       128:141483
TITLE:                 Acryloylmorpholine-substituted acrylic
                        fluorosilicone oligomeric functionality
                        modifiers
INVENTOR(S):           Yasue, Toshio; Sawada, Hideo
PATENT ASSIGNEE(S):    Showa Denko K. K., Japan
SOURCE:                Jpn. Kokai Tokkyo Koho, 13 pp.
                        CODEN: JKXXAF
DOCUMENT TYPE:          Patent
LANGUAGE:               Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10007742	A2	19980113	JP 1996-160267	

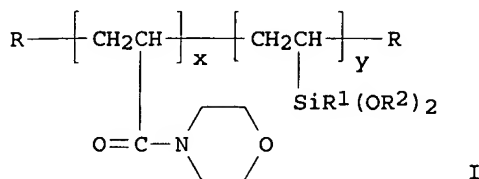
PRIORITY APPLN. INFO.:

JP 1996-160267

1996  
0620

1996  
0620

GI



AB The modifiers, used for treatments of **fibers**, paper, and polymer and glass surfaces, contain acryloylmorpholine-substituted fluorosilicone oligomers I [R = (CF<sub>2</sub>)<sub>n</sub>F, CF(CF<sub>3</sub>)O(CF<sub>2</sub>(CF<sub>3</sub>)O)<sub>m</sub>CF<sub>3</sub>; n = 1-15; m = 0-6; x, y ≥ 1; R<sub>1</sub> = lower alkyl, lower alkoxy; R<sub>2</sub> = lower alkyl]. Thus, di(perfluorobutyryl) peroxide 21.3, trimethoxyvinylsilane 2.22, and acryloylmorpholine 2.12 g were treated at 45° for 3 h in AK 225 to give I (R = F<sub>7</sub>C<sub>3</sub>), 1 part of which was mixed with 100 parts PhMe solution of Bu acrylate-Et acrylate-acrylonitrile-2-hydroxyethyl methacrylate copolymer (solid content 22%) and 10 parts DMF to give a **fiber-treating agent**. A solution containing thus obtained treating agent, 2,4,6-tri(N-methoxymethyl, N-methyl)amino-1,3,5-triazine, alkylbenzenesulfonic acids, and PhMe was applied on a **nylon woven fabric** and treated at 110-160° for 2 h to give a treated **fabric** showing good water and oil repellency.

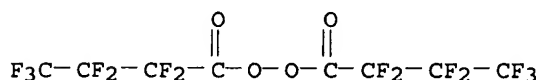
IT 336-64-1DP, Di(perfluorobutyryl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer 34434-27-0DP, Bis(perfluorooctanoyl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer 42514-14-7DP, Di(perfluoroheptanoyl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 PRP (Properties); TEM (Technical or engineered material use); PREP  
 (Preparation); USES (Uses)

(acryloylmorpholine-substituted acrylic fluorosilicone  
 oligomeric functionality modifiers for polymers, **fibers**  
 , paper, and glass)

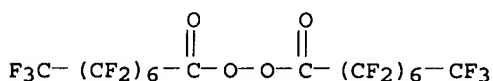
RN 336-64-1 HCAPLUS

CN Peroxide, bis(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl) (9CI) (CA  
 INDEX NAME)



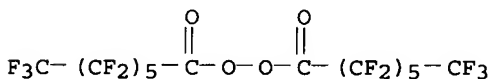
RN 34434-27-0 HCAPLUS

CN Peroxide, bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-  
 oxooctyl) (9CI) (CA INDEX NAME)



RN 42514-14-7 HCAPLUS

CN Peroxide, bis(2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-1-oxoheptyl)  
 (9CI) (CA INDEX NAME)



IC ICM C08F230-08

ICS C08F220-58; C09D005-00; C09D133-26; C09D143-04; C09K003-00;  
 C09K003-18; D06M013-50; D06M015-643; C08J005-08; C08J007-04

CC 37-2 (Plastics Manufacture and Processing)

Section cross-reference(s): 40, 42, 43, 46, 57

ST acryloyl morpholine fluorosilicone oligomer functionality  
 modifier; fiber treating agent acryloylmorpholine  
 fluorosilicone oligomer; paper treating agent acryloylmorpholine  
 fluorosilicone oligomer; surface modifier polymer  
 acryloylmorpholine fluorosilicone oligomer; water oil repellency  
 acryloylmorpholine fluorosilicone oligomer; glass surface modifier  
 acryloylmorpholine fluoro silicone

IT Polysiloxanes, preparation

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 PRP (Properties); TEM (Technical or engineered material use); PREP  
 (Preparation); USES (Uses)

(acrylic; acryloylmorpholine-substituted acrylic fluorosilicone  
 oligomeric functionality modifiers for polymers, **fibers**  
 , paper, and glass)

IT Polyesters, properties

RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical  
 process); PRP (Properties); PROC (Process)

(acryloylmorpholine-substituted acrylic fluorosilicone  
 oligomeric functionality modifiers for polymers, **fibers**  
 , paper, and glass)

IT Fabric finishing

(agents; acryloylmorpholine-substituted acrylic fluorosilicone  
 oligomeric functionality modifiers for polymers, **fibers**  
 , paper, and glass)

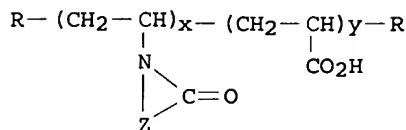
IT Coating materials

- (antisoiling; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT Textiles  
(cotton; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT Polyamide fibers, properties  
Polyester fibers, properties  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
(fabric; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT Metals, miscellaneous  
RL: MSC (Miscellaneous)  
(ions, absorbents for; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT Paper  
(kraft; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT Coating materials  
Coating materials  
Coating materials  
(oil- and water-resistant; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT 336-64-1DP, Di(perfluorobutyryl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer  
34434-27-0DP, Bis(perfluorooctanoyl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer  
42514-14-7DP, Di(perfluoroheptanoyl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer  
56347-79-6DP, Di(perfluoro-2-methyl-3-oxahexanoyl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer  
133414-71-8DP, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT 9002-86-2, Vinyl chloride homopolymer 25038-59-9, Poly(ethylene terephthalate), properties  
RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
(acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT 7440-70-2, Calcium, processes  
RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(ions, absorption of; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT 179679-13-1DP, reaction products with perfluoroalkyl peroxides  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(oligomeric; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)

L117 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1998:36016 HCAPLUS  
 DOCUMENT NUMBER: 128:141482  
 TITLE: Fluoroalkyl- and vinylpyrrolidone- or  
 vinylpiperidone-substituted acrylic oligomeric  
 functionality modifier  
 INVENTOR(S): Yasue, Toshio; Sahada, Hideo  
 PATENT ASSIGNEE(S): Showa Denko K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10007738	A2	19980113	JP 1996-160268	1996 0620
PRIORITY APPLN. INFO.:			JP 1996-160268	1996 0620

GI



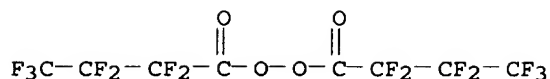
I

AB The modifiers, used for treatments of **fibers**, paper, and polymer surfaces and as surfactants and metal ion absorbents, contain fluoroalkyl-substituted oligomers I [R = (O-bridged) C1-25 fluoroalkyl; Z = (CH<sub>2</sub>)<sub>3</sub>, (CH<sub>2</sub>)<sub>4</sub>; x, y ≥ 1]. Thus, acrylic acid 24, di(perfluoro-2-methyl-3-oxahexanoyl) peroxide 5, and N-vinyl-2-pyrrolidone 25 mmol were treated at 40° for 5 h in AK 225 to give I [R = F<sub>7</sub>C<sub>3</sub>OCF(CF<sub>3</sub>), Z = (CH<sub>2</sub>)<sub>3</sub>], 1 part of which was mixed with 100 parts PhMe solution of Bu acrylate-Et acrylate-acrylonitrile-2-hydroxyethyl methacrylate copolymer (solid content 22%) and 10 parts DMF to give a **fiber**-treating agent. A solution containing thus obtained treating agent, 2,4,6-tri(N-methoxymethyl, N-methyl)amino-1,3,5-triazine, alkylbenzenesulfonic acids, and PhMe was applied on a nylon **woven fabric** and treated at 110-160° for 2 h to give a **fabric** showing good water and oil repellency.

IT 336-64-1DP, Di(perfluorobutyryl) peroxide, reaction products with polyacrylic acid and vinylpyrrolidone  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-substituted acrylic oligomeric functionality modifier for polymers, **fibers**, and paper)

RN 336-64-1 HCAPLUS

CN Peroxide, bis(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl) (9CI) (CA INDEX NAME)



- IC ICM C08F220-06  
ICS B01F017-52; C08F226-06; C08F226-10; C09K003-00; D06M013-398;  
C09D133-02; C09D139-04
- CC 37-2 (Plastics Manufacture and Processing)  
Section cross-reference(s): 40, 42, 43, 46
- ST acrylic oligomer fluoroalkyl vinylpyrrolidone functionality  
modifier; **fiber** treatment acrylic vinylpiperidone  
fluoroalkyl oligomer; paper treatment acrylic vinylpyrrolidone  
fluoroalkyl oligomer; surfactant vinyl piperidone acrylic  
fluoroalkyl oligomer; metal ion absorbent acrylic fluoroalkyl  
oligomer; surface modifier polymer acrylic fluoroalkyl oligomer;  
water oil repellency acrylic fluoroalkyl oligomer
- IT **Fabric** finishing  
(agents; fluoroalkyl- and vinylpyrrolidone- or  
vinylpiperidone-substituted acrylic oligomeric functionality  
modifier for polymers, **fibers**, and paper)
- IT Coating materials  
(**antisoiling**; fluoroalkyl- and vinylpyrrolidone- or  
vinylpiperidone-substituted acrylic oligomeric functionality  
modifier for polymers, **fibers**, and paper)
- IT Polyamide **fibers**, properties  
Polyester **fibers**, properties  
RL: PEP (Physical, engineering or chemical process); PRP  
(Properties); PROC (Process)  
(**fabric**; fluoroalkyl- and vinylpyrrolidone- or  
vinylpiperidone-substituted acrylic oligomeric functionality  
modifier for polymers, **fibers**, and paper)
- IT Surfactants  
(fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-  
substituted acrylic oligomeric functionality modifier for  
polymers, **fibers**, and paper)
- IT Polyesters, properties  
RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical  
process); PRP (Properties); PROC (Process)  
(fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-  
substituted acrylic oligomeric functionality modifier for  
polymers, **fibers**, and paper)
- IT Absorbents  
(for metal ion; fluoroalkyl- and vinylpyrrolidone- or  
vinylpiperidone-substituted acrylic oligomeric functionality  
modifier for polymers, **fibers**, and paper)
- IT Metals, miscellaneous  
RL: MSC (Miscellaneous)  
(ions, absorbents for; fluoroalkyl- and vinylpyrrolidone- or  
vinylpiperidone-substituted acrylic oligomeric functionality  
modifier for polymers, **fibers**, and paper)
- IT Paper  
(kraft; fluoroalkyl- and vinylpyrrolidone- or  
vinylpiperidone-substituted acrylic oligomeric functionality  
modifier for polymers, **fibers**, and paper)
- IT Coating materials  
Coating materials  
Coating materials  
(oil- and water-resistant; fluoroalkyl- and vinylpyrrolidone-  
or vinylpiperidone-substituted acrylic oligomeric functionality  
modifier for polymers, **fibers**, and paper)
- IT 88-12-ODP, N-Vinyl-2-pyrrolidone, reaction products with  
polyacrylic acid and perfluoroalkyl peroxide 336-64-1DP,  
Di(perfluorobutyl) peroxide, reaction products with polyacrylic  
acid and vinylpyrrolidone 4370-23-4DP, reaction products with

polyacrylic acid and perfluoroalkyl peroxide 9003-01-4DP,  
 Poly(acrylic acid), reaction products with vinylpyrrolidone or  
 vinylpiperidone and perfluoroalkyl peroxide 56347-79-6DP,  
 Di(perfluoro-2-methyl-3-oxahexanoyl) peroxide, reaction products  
 with polyacrylic acid and vinylpyrrolidone 133414-70-7DP,  
 reaction products with polyacrylic acid and vinylpyrrolidone  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 PRP (Properties); TEM (Technical or engineered material use); PREP  
 (Preparation); USES (Uses)

(fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-  
 substituted acrylic oligomeric functionality modifier for  
 polymers, **fibers**, and paper)

IT 9002-86-2, Vinyl chloride homopolymer 25038-59-9, Poly(ethylene  
 terephthalate), properties

RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical  
 process); PRP (Properties); PROC (Process)

(fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-  
 substituted acrylic oligomeric functionality modifier for  
 polymers, **fibers**, and paper)

IT 7440-70-2, Calcium, processes

RL: PEP (Physical, engineering or chemical process); PROC  
 (Process)

(ions, absorption of; fluoroalkyl- and vinylpyrrolidone- or  
 vinylpiperidone-substituted acrylic oligomeric functionality  
 modifier for polymers, **fibers**, and paper)

L117 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:36013 HCAPLUS

DOCUMENT NUMBER: 128:141481

TITLE: Acryloylmorpholine- and fluoroalkyl-  
 substituted acrylic oligomeric functionality  
 modifiers

INVENTOR(S): Yasue, Toshio; Sawada, Hideo

PATENT ASSIGNEE(S): Showa Denko K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

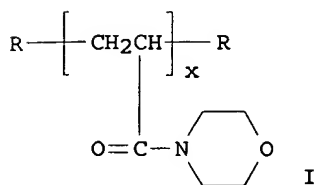
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10007731	A2	19980113	JP 1996-160269	1996 0620
PRIORITY APPLN. INFO.:			JP 1996-160269	1996 0620

GI



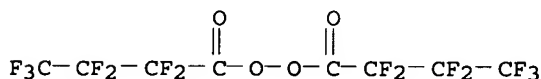
AB The modifiers, used for treatments of fibers, paper, and polymer surfaces and as surfactants and metal ion absorbents, contain acryloylmorpholine- and fluoroalkyl-substituted oligomers I [R = (CF<sub>2</sub>)<sub>n</sub>F, CF(CF<sub>3</sub>)O[CF<sub>2</sub>(CF<sub>3</sub>)O]<sub>m</sub>C<sub>3</sub>F<sub>7</sub>; n = 1-15; m = 0-6; x ≥ 1]. Thus, 3.29 g di(perfluoro-2-methyl-3-oxahexanoyl) peroxide and 3.39 g acryloylmorpholine were treated at 45° for 5 h in AK 225 to give I [R = F<sub>7</sub>C<sub>3</sub>OCF(CF<sub>3</sub>)], 1 part of which was mixed with 100 parts PhMe solution of Bu acrylate-Et acrylate-acrylonitrile-2-hydroxyethyl methacrylate copolymer (solid content 22%) and 10 parts DMF to give a **fiber**-treating agent. A solution containing thus obtained treating agent, 2,4,6-tri(N-methoxymethyl, N-methyl)amino-1,3,5-triazine, alkylbenzenesulfonic acids, and PhMe was applied on a **nylon woven fabric** and treated at 110-160° for 2 h to give a treated **fabric** showing good water and oil repellency.

IT 336-64-1DP, Di(perfluorobutyryl) peroxide, reaction products with acryloylmorpholine oligomer 34434-27-ODP, Bis(perfluorooctanoyl) peroxide, reaction products with acryloylmorpholine oligomer 42514-14-7DP, Di(perfluoroheptanoyl) peroxide, reaction products with acryloylmorpholine oligomer  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, **fibers**, and paper)

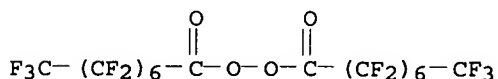
RN 336-64-1 HCAPLUS

CN Peroxide, bis(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl) (9CI) (CA INDEX NAME)



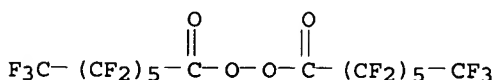
RN 34434-27-0 HCAPLUS

CN Peroxide, bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl) (9CI) (CA INDEX NAME)



RN 42514-14-7 HCAPLUS

CN Peroxide, bis(2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-1-oxoheptyl) (9CI) (CA INDEX NAME)



IC ICM C08F126-10

ICS B01F017-52; C08F126-06; C09K003-00; D06M013-398; C09D139-04

CC 37-2 (Plastics Manufacture and Processing)

Section cross-reference(s): 40, 42, 43, 46

ST acryloyl morpholine fluoroalkyl oligomer functionality modifier; **fiber** treating agent acryloylmorpholine fluoroalkyl oligomer; paper treating agent acryloylmorpholine fluoroalkyl oligomer; surfactant acryloylmorpholine fluoroalkyl oligomer;



- metal ion absorbent acryloylmorpholine fluoroalkyl oligomer;  
 surface modifier polymer acryloylmorpholine fluoroalkyl oligomer;  
 water oil repellency acryloylmorpholine fluoroalkyl oligomer
- IT Surfactants  
 (acryloylmorpholine- and fluoroalkyl-substituted acrylic  
 oligomeric functionality modifiers for polymers, **fibers**  
 , and paper)
- IT Polyesters, properties  
 RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical  
 process); PRP (Properties); PROC (Process)  
 (acryloylmorpholine- and fluoroalkyl-substituted acrylic  
 oligomeric functionality modifiers for polymers, **fibers**  
 , and paper)
- IT Fabric finishing  
 (agents; acryloylmorpholine- and fluoroalkyl-substituted  
 acrylic oligomeric functionality modifiers for polymers,  
**fibers**, and paper)
- IT Coating materials  
 (**antisoiling**; acryloylmorpholine- and  
 fluoroalkyl-substituted acrylic oligomeric functionality  
 modifiers for polymers, **fibers**, and paper)
- IT Textiles  
 (cotton; acryloylmorpholine- and fluoroalkyl-substituted  
 acrylic oligomeric functionality modifiers for polymers,  
**fibers**, and paper)
- IT Polyamide **fibers**, properties  
 Polyester **fibers**, properties  
 RL: PEP (Physical, engineering or chemical process); PRP  
 (Properties); PROC (Process)  
 (**fabric**; acryloylmorpholine- and fluoroalkyl-  
 substituted acrylic oligomeric functionality modifiers for  
 polymers, **fibers**, and paper)
- IT Absorbents  
 (for metal ion; acryloylmorpholine- and fluoroalkyl-substituted  
 acrylic oligomeric functionality modifiers for polymers,  
**fibers**, and paper)
- IT Metals, miscellaneous  
 RL: MSC (Miscellaneous)  
 (ions, absorbents for; acryloylmorpholine- and  
 fluoroalkyl-substituted acrylic oligomeric functionality  
 modifiers for polymers, **fibers**, and paper)
- IT Paper  
 (kraft; acryloylmorpholine- and fluoroalkyl-substituted acrylic  
 oligomeric functionality modifiers for polymers, **fibers**  
 , and paper)
- IT Coating materials  
 Coating materials  
 Coating materials  
 (oil- and water-resistant; acryloylmorpholine- and  
 fluoroalkyl-substituted acrylic oligomeric functionality  
 modifiers for polymers, **fibers**, and paper)
- IT 336-64-1DP, Di(perfluorobutyl) peroxide, reaction  
 products with acryloylmorpholine oligomer 34434-27-ODP,  
 Bis(perfluorooctanoyl) peroxide, reaction products with  
 acryloylmorpholine oligomer 42514-14-7DP,  
 Di(perfluoroheptanoyl) peroxide, reaction products with  
 acryloylmorpholine oligomer 56347-79-6DP, Di(perfluoro-2-methyl-  
 3-oxahexanoyl) peroxide, reaction products with acryloylmorpholine  
 oligomer 133414-70-7DP, reaction products with  
 acryloylmorpholine oligomer 133414-71-8DP, reaction products  
 with acryloylmorpholine oligomer  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 PRP (Properties); TEM (Technical or engineered material use); PREP  
 (Preparation); USES (Uses)  
 (acryloylmorpholine- and fluoroalkyl-substituted acrylic  
 oligomeric functionality modifiers for polymers, **fibers**

- , and paper)
- IT 9002-86-2, Vinyl chloride homopolymer 25038-59-9, Poly(ethylene terephthalate), properties  
 RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
 (acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, **fibers**, and paper)
- IT 7440-70-2, Calcium, processes  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (ions, absorption of; acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, **fibers**, and paper)
- IT 28902-82-1DP, Acryloylmorpholine homopolymer, reaction products with perfluoroalkyl peroxides  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (oligomeric; acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, **fibers**, and paper)

L117 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:787921 HCAPLUS

DOCUMENT NUMBER: 128:76565

TITLE: Polyvinyl chloride-finished mesh sheets and method for protecting the sheets from abrasion, blooming, outdoor exposure and soiling

INVENTOR(S): Sakobe, Ikou; Ishikawa, Kunihiro

PATENT ASSIGNEE(S): Unitika Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09316780	A2	19971209	JP 1996-137951	1996 0531

PRIORITY APPLN. INFO.: JP 1996-137951

1996  
0531

AB The sheets useful for replacing conventional tarps in their typical applications are coated with a composition containing (A) copolymers derived from fluorinated or/and siloxane-modified (meth)acrylates and other (meth)acrylate monomers, (B) homopolymers bearing (meth)acryloyl groups and (C) fluoroolefin polymers for preventing the bleeding of PVC processing aids such as plasticizers and improving the resistance to abrasion, snow and soiling. Thus, dipping a **woven fabric** of polyester **fibers** in a mixture of PVC 100, di(2-methylhexyl) phthalate 60, CaCO<sub>3</sub> 20, Zn stearate 3 and pigment 10 parts and heating gave a plastic tarp which was coated with a composition of F-containing siloxane methacrylate polymer 10, PMMA 50 and a tetrafluoroethylene-vinylidene chloride copolymers 40 parts to give a sheet with good resistance to abrasion, snow and soiling.

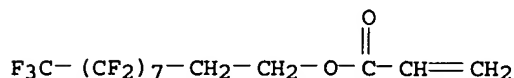
IT 27905-45-9D, 2-(Perfluorooctyl)ethyl acrylate, polymers with (meth)acrylate compds. bearing siloxane groups and comonomers

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(protective coating for use on polyvinyl chloride-finished synthetic tarps with good resistance to abrasion, blooming, outdoor exposure and soiling)

RN 27905-45-9 HCAPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl ester (9CI) (CA INDEX NAME)



IC ICM D06M015-248

ICS D06M015-277

CC 40-9 (Textiles and Fibers)

Section cross-reference(s): 38, 42

IT Coating materials

(antisoiling; protective coating for use on polyvinyl chloride-finished synthetic tarps with good resistance to abrasion, blooming, outdoor exposure and soiling)

IT Polyester fibers, uses

RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(plastic tarps; protective coating for use on polyvinyl chloride-finished synthetic tarps with good resistance to abrasion, blooming, outdoor exposure and soiling)

IT 80-62-6D, Methyl methacrylate, graft copolymers with methacryloyloxypropyldimethylsilyl- and trimethylsilyl-terminated siloxanes, and F-containing (meth)acrylate compds. 9010-88-2, Dianal BR-64 25034-86-0, Dianal BR-80 25190-89-0, Kynar ADS 25684-76-8, Kynar SL 27905-45-9D, 2-(Perfluorooctyl)ethyl acrylate, polymers with (meth)acrylate compds. bearing siloxane groups and comonomers 31900-57-9D, Dimethylsilanediol homopolymer, methacryloyloxypropyldimethylsilyl- and trimethylsilyl-terminated, graft polymers with F-containing (meth)acrylate compds. and other comonomers 123109-42-2D, Polydimethylsiloxane, methacryloyloxypropyldimethylsilyl- and trimethylsilyl-terminated, polymers with F-containing (meth)acrylate compds. and other comonomers 138931-88-1, Dianal BR-108  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(protective coating for use on polyvinyl chloride-finished synthetic tarps with good resistance to abrasion, blooming, outdoor exposure and soiling)

L117 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:636701 HCAPLUS

DOCUMENT NUMBER: 125:250587

TITLE: Water- and oil-repellent agents of fluoropolymers with improved soiling resistance

INVENTOR(S): Ito, Katsuji; Yamauchi, Masaru

PATENT ASSIGNEE(S): Asahi Glass Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 08199111

A2

19960806

JP 1995-11004

1995  
0126

JP 3463391

B2

20031105

JP 1995-11004

1995  
0126

PRIORITY APPLN. INFO.:

AB The water-dispersed agents with good dry soiling resistance for fibers and fabrics contain 100 parts of polymers having structural units of polyfluoroalkyl-containing  $\alpha$ ,  $\beta$ -unsatd. compds. and 10-60 parts fluoroolefin polymers. Thus, a fabric was dipped in a 2/0.5 mixture of a fluoropolymer prepared from cyclohexyl vinyl ether 38.0, Et vinyl ether 22.1, hydroxybutyl vinyl ether 1.5, and  $\text{CH}_2\text{:CHO(CH}_2)_4\text{(OCH}_2\text{CH}_2\text{)nOH}$  ( $n = 1-10$ ) 4.5% and another fluoropolymer prepared from p-fluoroalkylethyl acrylate 140, vinyl chloride 40, 2-hydroxyethyl acrylate 8, and dioctyl maleate 12 parts, dried at 110° for 90 s, and heated at 170° for 60 s to give a test piece showing good water and oil repellency and dry soiling resistance for polyester and cotton fabrics.

IT 182359-38-2P 182359-39-3P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(water- and oil-repellents of fluoropolymers with improved soiling resistance)

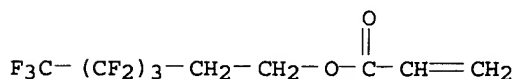
RN 182359-38-2 HCAPLUS

CN 2-Butenedioic acid (2Z)-, bis(2-ethylhexyl) ester, polymer with chloroethene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, 2-hydroxyethyl 2-propenoate, 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 52591-27-2

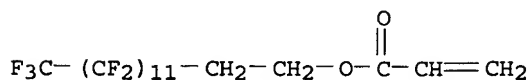
CMF C9 H7 F9 O2



CM 2

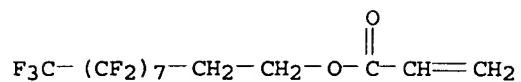
CRN 34395-24-9

CMF C17 H7 F25 O2



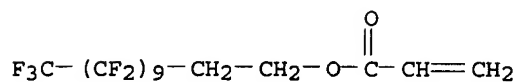
CM 3

CRN 27905-45-9  
CMF C13 H7 F17 O2



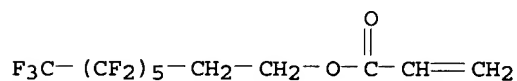
CM 4

CRN 17741-60-5  
CMF C15 H7 F21 O2



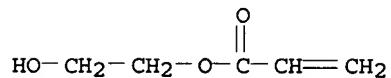
CM 5

CRN 17527-29-6  
CMF C11 H7 F13 O2



CM 6

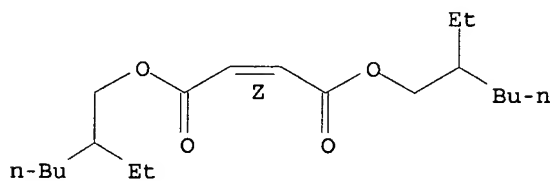
CRN 818-61-1  
CMF C5 H8 O3



CM 7

CRN 142-16-5  
CMF C20 H36 O4

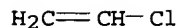
Double bond geometry as shown.



CM 8

CRN 75-01-4

CMF C2 H3 Cl



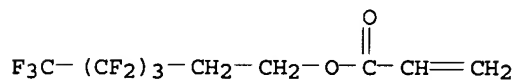
RN 182359-39-3 HCAPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, 2-hydroxyethyl 2-propenoate, 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate, octadecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 52591-27-2

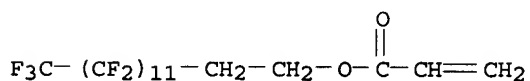
CMF C9 H7 F9 O2



CM 2

CRN 34395-24-9

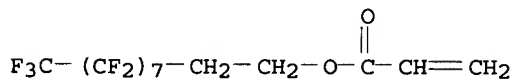
CMF C17 H7 F25 O2



CM 3

CRN 27905-45-9

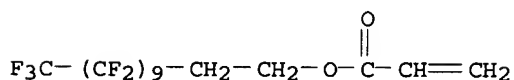
CMF C13 H7 F17 O2



CM 4

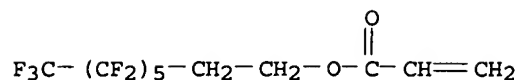
CRN 17741-60-5

CMF C15 H7 F21 O2



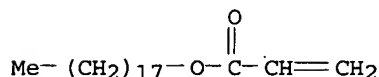
CM 5

CRN 17527-29-6  
CMF C11 H7 F13 O2



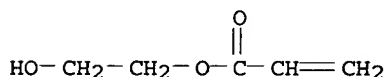
CM 6

CRN 4813-57-4  
CMF C21 H40 O2



CM 7

CRN 818-61-1  
CMF C5 H8 O3



IC ICM C09D127-12  
ICS C09D133-14; C09K003-00; C09K003-18; D06M015-277  
CC 42-10 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 40  
ST oil water repellent fluoropolymer; water dispersed water oil repellent fluoropolymer; soiling resistance fabric fluoropolymer  
IT **Textiles**  
(substrates; water- and oil-repellents of fluoropolymers with improved soiling resistance for fabric coating)  
IT Coating materials  
(antisoiling, water- and oil-repellents of fluoropolymers with improved soiling resistance)  
IT 126682-75-5P 182359-37-1P 182359-38-2P 182359-39-3P 182359-40-6P 182359-41-7P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(water- and oil-repellents of fluoropolymers with improved soiling resistance)

L117 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1987:424741 HCAPLUS  
DOCUMENT NUMBER: 107:24741  
TITLE: Soiling-resistant synthetic fibers  
INVENTOR(S): Shinonome, Osami; Kitahara, Takeshi; Murakami, Shiro  
PATENT ASSIGNEE(S): Unitika Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 61245370	A2	19861031	JP 1985-85168	1985 0418
PRIORITY APPLN. INFO.:				JP 1985-85168 1985 0418

AB Title **fibers** having fine projections on the surface are composed of heterogeneous mixts. of thermoplastic polymers and polymers having higher glass transition temperature than that of the thermoplastic polymers and are coated with F-containing films. Poly(ethylene terephthalate) (90 parts) was mixed with 10 parts polyarylates obtained by polymerization of bisphenol A and 1:1 mol terephthaloyl chloride and isophthaloyl chloride, and 0.5 part Bu<sub>2</sub>HPO<sub>4</sub>, kneaded at 270° for 4 min, melt spun at 280°, taken up on a roller at 6000 m/min, and coated with 2-chloroethyl vinyl ether-2-hydroxyethyl acrylate-2-perfluorooctylethyl acrylate-vinyl chloride copolymer dispersed in mineral oil to obtain **fibers** (75 denier/16 filament) which had fine projections on the surface and showed strength 3.2 g/denier and elongation 43%.

IT 92213-60-0, 2-Chloroethylvinyl ether-2-hydroxyethyl acrylate-2-perfluorooctylethyl acrylate-vinyl chloride copolymer  
RL: USES (Uses)

(coating, for polyester-polyarylate bicomponent **fibers**, for good soil resistance)

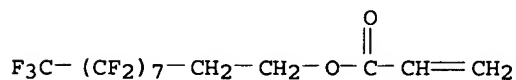
RN 92213-60-0 HCAPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester, polymer with chloroethene, (2-chloroethoxy)ethene and 2-hydroxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 27905-45-9

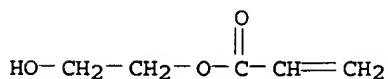
CMF C13 H7 F17 O2



CM 2

CRN 818-61-1

CMF C5 H8 O3

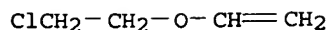


CM 3

CRN 110-75-8

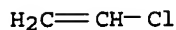
CMF C4 H7 Cl O





CM 4

CRN 75-01-4  
CMF C2 H3 C1



IC ICM D06M015-00  
ICS D06M013-00  
ICA D01F011-08  
CC 40-5 (Textiles and Fibers)  
Section cross-reference(s): 42  
ST polyester fiber soiling resistant; fluoroacrylic coating  
antisoiling polyester fiber; polyarylate  
fiber bicomponent PET; chloroethoxyethylene copolymer  
antisoiling coating fiber; hydroxyethyl acrylate  
copolymer antisoiling coating; fluoroocylethyl acrylate  
copolymer antisoiling coating; vinyl chloride copolymer  
antisoiling coating  
IT Polyester fibers, uses and miscellaneous  
RL: USES (Uses)  
(bicomponent containing bisphenol A polyarylates, coatings for,  
fluoroacrylic polymers as, for soiling resistance)  
IT Coating materials  
(fluoroacrylic polymers, for polyester-polyarylate bicomponent  
fibers)  
IT 92213-60-0, 2-Chloroethylvinyl ether-2-hydroxyethyl  
acrylate-2-perfluoroocylethyl acrylate-vinyl chloride copolymer  
RL: USES (Uses)  
(coating, for polyester-polyarylate bicomponent fibers  
, for good soil resistance)  
IT 25639-68-3, Bisphenol A-isophthaloyl chloride-terephthaloyl  
chloride copolymer 39281-59-9  
RL: USES (Uses)  
(fibers containing PET and, coatings for, fluoroacrylic  
polymers as, for soiling resistance)

L117 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1987:34579 HCAPLUS  
DOCUMENT NUMBER: 106:34579  
TITLE: Soil release composition and its use  
INVENTOR(S): Hisamoto, Iwao; Hirai, Masaru; Ishikawa,  
Sueyoshi  
PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan  
SOURCE: Eur. Pat. Appl., 29 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
EP 195323	A2	19860924	EP 1986-103005	1986 0306
EP 195323	A3	19881109		

EP 195323 B1 19920826  
 R: DE, FR, GB  
 US 4695488 A 19870922 US 1986-835754 1986  
 0303  
 JP 62007782 A2 19870114 JP 1986-52296 1986  
 0310  
 JP 04003788 B4 19920124  
 CN 86101422 A 19860924 CN 1986-101422 1986  
 0312  
 CN 1004420 B 19890607  
 PRIORITY APPLN. INFO.: JP 1985-49944 A 1985  
 0312

AB Coatings containing vinyl polymers with pendant fluoroalkyl oxyalkylene groups, hydrophilic resins, and, optionally, water and oil repellents have good oil and soil resistance and water absorption or repellency and are useful on plastics, fabrics, and paper. A mixture of C2F5(CF2CF2)nCH2CH(OH)CH2OZCOCMe:CH2-HOZCOCMe:CH2 copolymer [Z = polyoxyethylene; n 2, 3, 4, 5, 6 = 3, 55, 28, 12, and 3%, resp.] 0.5, Sumitex-901 0.5, Sumitex-102 0.5, and Zn(NO3)2 0.5 part, coated on nylon cloth, had H2O absorption 30 and 30 s and oil repellency (100 = best, 0 = worst) 90 and 70 before and after washing, resp.; vs. >60, >60, 80, and 70, resp., for a polymer without oxyalkylene groups in the fluoroalkyl pendent group.

IT 92708-16-2 106185-99-3

RL: USES (Uses)

(soilproofing agents, for fabrics and coatings)

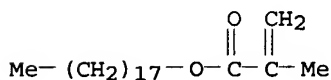
RN 92708-16-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 32360-05-7

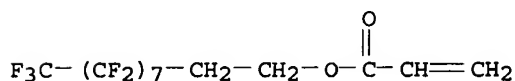
CMF C22 H42 O2



CM 2

CRN 27905-45-9

CMF C13 H7 F17 O2

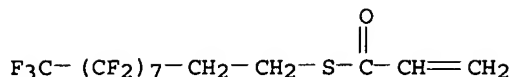


RN 106185-99-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with S-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl) 2-propenethioate (9CI) (CA INDEX NAME)

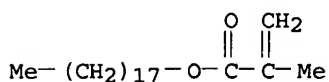
CM 1

CRN 106185-98-2  
 CMF C13 H7 F17 O S



CM 2

CRN 32360-05-7  
 CMF C22 H42 O2



IC ICM C08L033-16  
 ICS D06M015-277

CC 40-9 (Textiles and Fibers)

Section cross-reference(s): 42, 43

IT Urethane polymers, uses and miscellaneous  
 RL: USES (Uses)

(in soilproofing agents for fabrics and coatings)

IT Polyamide fibers, uses and miscellaneous  
 Polyester fibers, uses and miscellaneous  
 RL: USES (Uses)

(soilproofing finishes for, polyethylene glycol fluoroalkyl ether methacrylate polymers as)

IT Oilproofing

Soilproofing

(agents, polyethylene glycol fluoroalkyl ether methacrylate polymers, for textiles)

IT Coating materials

(antisoiling, polyethylene glycol fluoroalkyl ether methacrylate polymers)

IT 136-84-5 9003-08-1 59763-47-2 67167-00-4 106254-20-0  
 106254-21-1 106255-46-3 106255-51-0 106255-55-4  
 RL: USES (Uses)

(in soilproofing agents for fabrics and coatings)

IT 100-42-5D, polymers with polyethylene glycol fluoroalkyl ether methacrylates 106-91-2D, Glycidyl methacrylate, polymers with polyethylene glycol fluoroalkyl ether methacrylates 141-32-2D, polymers with polyethylene glycol fluoroalkyl ether methacrylates 924-42-5D, polymers with polyethylene glycol fluoroalkyl ether methacrylates 9003-53-6D, Polystyrene, thioalkyl acrylate derivs., polymers with polyethylene glycol fluoroalkyl ether methacrylates 25736-86-1D, perfluoroalkyl ethers, copolymers 25736-86-1D, polymers with polyethylene glycol fluoroalkyl ether methacrylates 92708-16-2 106185-99-3

RL: USES (Uses)

(soilproofing agents, for fabrics and coatings)

=&gt;